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JANUS AND VESTA

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JANUS & VESTA

A STUDY OF THE WORLD CRISIS AND AFTER

BY BENCHARA BRANFORD



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LONDON
CHATTO & WINDUS
MCMXVI

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As the Author is an official (Divisional Inspector in Education) in the service of the London County Council, it is proper to state that the Council is in no way responsible for the contents of this book and has taken no part in its publication.

DEDICATED TO MY WIFE.

PREFACE

THE present study has been thought out and written at intervals during the last five and twenty years, under the impression, faint at first but steadily increasing in strength, that the world was passing through a crisis of which the great war has been but the unhappy culmination. Difficult as is the matter of which it treats, the author hopes that the work to which he has devoted so many years will merit thoughtful public attention, and come to exercise some modest measure of useful influence in the gradual regeneration of culture and civilisation that will be needed when society passes from its crisis into the healing stage of its lysis.

In matter so complex in its nature the author would venture in all modesty to offer the advice of Lagrange: *Read backwards and forwards, in the belief that it will repay careful study.* To this end each chapter has been made a whole in itself as well as a part of a larger whole.

The indulgence of the critical reader is asked for the author's frequent use of the french custom of the omission of capitals: the æsthetic needs of the eye and avoidance of ambiguity have been deliberately permitted to override the demands of convention and consistency.

During a recent long and serious illness the author has become greatly indebted to his esteemed friend Professor Nunn, M.A., D.Sc., of London University for correction and criticism of proof sheets, and to his brother, the Rev. John Branford, M.A., for the Index.

Grateful acknowledgments for the kind permission

of Editors to republish (with considerable additions) certain chapters which have already appeared will be found at various points of the work; but lack of space, the nature of the subject itself, and still more the length of time during which the contents have been thought out, make entirely impracticable any systematic list of the large number of works in several languages that have been consulted and to which the author is deeply indebted.

The author also desires to acknowledge the rare generosity and skill with which the Publishers have acceded to his many and varied requirements in the publication and printing of the work.

As the range of subject ventured upon and the comparative smallness of the space available may have sometimes forced the author to assume the mantle of a dogmatical brevity, it becomes him, in the spirit of Hume's concluding words to the first volume of his famous "Treatise of Human Nature" (1738), to disclaim "*any dogmatical spirit or conceited idea of his own judgment, which are sentiments he is sensible can become nobody, and a (philosopher) still less than any other.*"

BENCHARA BRANFORD.

109, ST. MARY'S MANSIONS, W.
25th Sept., 1916.

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THE ARGUMENT

JANUS and Vesta were those characteristically Roman twin-spirits, unique in Aryan religions, each most ancient and most holy, that inspired Roman culture and civilisation at its loftiest peaks throughout its vast duration, and most in evidence during its grandest period, the six generations terminating with the death of Scipio Africanus, the Elder, perhaps the greatest of Romans—a period wherein was organised a marvellously balanced aristo-democracy and demo-aristocracy whose mode of evolution and essence are illuminative for all times.

Under the presiding united spirit of Janus and Vesta, the famous City-State was administered by its citizens in the light of a simple human family and household writ large, with its hierarchy of united rule and service.

The dominant world-patriarchy was in Rome still powerfully influenced by a strong traditional residue of the long preceding world-matriarchy, the spirit of which was enshrined in the name itself, Roma Dea the divine Motherland; and of all the temples in Rome, that of Vesta was the most ancient.

Thereby evolved the moral dignity and economic management of the Roman Citizen-Mother, woman and wife at her highest; reverence for the mighty spirits of earth and heaven (the numina) at its deepest; a fruitful union of rural culture and urban civilisation; and perhaps, most significant and important of all, a progressive balance and balanced progress of power, as of a man walking steadily, both in the sphere sacred and in the sphere secular, including representative guilds both of employers and employed before the darker days of slavery; with a further balanced progress and progressive balance as between those

secular and sacred powers themselves, now known as the temporal and the spiritual: accompanied by avoidance of fatal obstinacy, sagacity in compromise, and a width of religious toleration (culminating later in the Roman Pantheon and Federal Council of the Gods as a bond of spiritual union, not a ground of temporal quarrel) paralleled by Hinduism alone; the basis of statesmanship in the Motherland, and colonisation abroad which had dropped the crude and fatal sword of terror, that turns at last into the self-crucifying cross, for the mighty balance of justice and the golden link of love, and thus reposed in last resort upon the local consent and loyal support of the provincial and municipal regions, the genius loci, *the grand old forerunner of modern* "régionalisme." *Such in broad epitome were the ideals, conceptions and forces inspiring the conduct of the Roman* commonweal.

COMMONWEAL!—*In the Shakespearean sense let this great word be taken, devoid of party or political significance, and embracing all forms of government from empires and kingdoms to theocracies, republics, and commonwealths (Cromwellian or other). It incarnates the spirit which must inspire all enduring rule, whatsoever be its form; it is the spirit of love and justice united, the spirit of* GOD, SERVANT *of servants,* RULER *of rulers.*

The gradual realisation of a parallel between the public conduct of the Commonweal and the private conduct of the Family, the closest, save for the first period of the United States Republic under Washington, that has perhaps ever obtained in recorded times, was discovered by the genius of the Roman mothers and fathers to afford the amplest field for the satisfaction of those undying and supreme instincts of humanity: the love of woman with her conservatory hold of existing good, and the courage of man with his creative grasp of the ideal future; revealing themselves in each crisis of life by calm patience and constancy in defeat, by rare moderation in victory, by tenacious and faithful fulfilment of promises (think of Regulus), contracts and treaties (symbolised by the worship

of Fides and Terminus), by a military organisation under thorough civil and domestic control, and elastically adaptable to a foreign policy sensitive to changing world conditions—all to the great end of evolution, noble and co-operative, conciliatory and creative, in the selective culture and cultivation of the finest seed of man, of animal, and of plant, in place of revolution, aggressive and violent, destructive and reactionary.

Needing originally no man-made effigy, above all was Vesta the spirit of the mysterious wisdom of the woman, purifying the temple of life and eternally conserving its spiritual fire. In the statues of later times she is shown with her chalice of water from the well of truth, her torch of learning, her sceptre of power, and her palladium, mysterious yet simple, of the conciliatory spirit of that fearless peace famous as "the peace of the gods." *Worshipped from the earliest times down to about four hundred years after Christ, on the final triumph of Roman Christianity the spirit of her worship transforms itself into the homage of the Madonna, Virgin Mother of Christ.*

The ancient story and its modern counterpart form a profound symbol of the spiritual significance by which the fiery heat of love first transforms into all seeing light, and finally passes into the divine harmony of God and man, the music of the spheres.

And Janus, as the spirit of the good beginnings of all things, was thus in some inscrutable way the spirit of all good spirits; as Janus Consivius the origin of all plants, animals, and men; the divine porter, an ancient Saint Christopher, the great servus servorum, *with his staff and key of the home in his hands (prototype of the key of Saint Peter presiding over the Vatican as once did Janus over the neighbouring Janiculum), the key of peace and of war, for in the homes and the hearts of man are bred the embryonic seeds of peace and war; with his two faces, placed back to back, signifying most clearly to all men the two sides of every question, apparently opposite, but in*

deeper insight different and necessary aspects of one and the same common humanity.

The spirit of harmony also was therefore Janus, inaugurating each new year with festival at once solemn and joyous on the first day of the first month (Januarius), upon which day no contentious thing must arise to form ill omen for days and months succeeding.

As twin spirits, equal guardians of the private family and the public weal, Janus at the opening and Vesta at the close are piously invoked at every sacrifice; for the spirit of the beginning and the spirit of the end are assuredly the most pregnant and potent either for good or for evil.

To the inexhaustible inspiration of this grand parallel and approach of city-state to private family, with the loftiness of its aim, the profundity of its basis, the subtlety of its detail, the breadth of its interests, its unmatchable organisation of life in the harmony of corporate discipline with individual scope, each indispensable for the complete development of the other, the Western world is consciously or unconsciously indebted for the substantial and reasonable spirit of its highest reaches of statecraft and its ripest fruits of justice.

In so far as Rome herself, and Europe following her example later, did depart from the guiding spirit of this grand parallel—the God-given archetypal design of government, in the institution of the human family,—and did worship instead the absolute Leviathan State so pregnantly pictured by Hobbes—to that degree has each reaped sooner or later the evil fruits thereof; and, at the present sad hour, the evil fruits in bitterest shape.

* * *

The inevitable effects of the present world-crisis will impel all thoughtful folk increasingly to seek a reinterpretation of the past experience of the human race in all its main types with a view to the greater social solidarity of man in families, cities, regions, nations and states, in institutions, classes, races and continents.

The present essay is our humble contribution to this vast labour on the educational side. Our main inspiration has been what we believe to be the guiding spirit of the ancient Roman civilisation, and the modern civilisation of the New World, each at its grandest epoch.

Not in isolation have we striven to view these, but as integral parts and contributions of the whole human race in its supreme task, under Providence, of its own education.

We have therefore not neglected the spirit of other nations and times, though these have necessarily been accorded a subordinate place, owing to our limitation of knowledge as well as to the specific objects in hand. We lay claim indeed to no capacity to judge the relative values of the manifold cultures, past and present, of the various races of mankind.

Should the present work be approved by the Public the author would hope in due season to submit to their further judgment another which he completed some years ago, entitled "Orpheus and Eurydice," a study of Hellenism, in which are also examined the foundations of the great religions of the world, and indirect reference to which is made in the present work. Indeed, in many respects, "Janus and Vesta" is introductory to the other.

April, 1915.

PROLOGUE

THROUGH the smoke of battle and the world suffering we see, in the long future, civilisation and culture re-orient, with a solidarity and unification of mankind widening over air and sea and land, and deepening in spirit to a degree bounded only by the limits of human capacity itself.

We see the whole human race in gradual co-operation, albeit doubtless with frequent periodic reverses, towards the lofty and sublime task of the discovery and creation of a veritable world religion with a world conscience of which the foundations are the great religions already evolved: towards a world culture of science, art and philosophy, rooted in domestic, civic, national and racial culture: towards world law evolving in harmony with the living spirit of the noblest custom and tradition of each and every people on this wide earth: towards a world polity of citizens offering increasing scope alike in duties and in rights to child, woman and man, family, city and region, nation and race, and doing justice to each according to its nature and needs.

The vastness of such a world endeavour will call upon the leaders, women and men alike, in successive generations, for a rare union of qualities—for humility, circumspection and foresight, for balance, sagacity and calmness, matched only by the need of fortitude and faith, of universal sympathy and lofty inspiration, of richness of equipment, unconquerable self-devotion, habitual magnanimity of conduct and of noble renunciation—and therewithal the common sense of the plain

man and woman, with its daily call for the spirit of humour and the joy of life.

For greatness of difficulty is greatness of opportunity; and greatness of opportunity is itself, alas, but too often the prelude to ultimate decadence and the basest corruption.

JANUS AND VESTA

CHAPTER I

THE PRESENT WORLD CRISIS OFFERS AN OPPORTUNITY FOR RE-ORIENTATION, WITH AN ERA OF PEACEDOM AND EVOLUTION IN PLACE OF WARDOM AND REVOLUTION

Thou turnest man to destruction: again Thou sayest, Come again, ye children of men.
For a thousand years in Thy sight are but as yesterday.

(PSALMS.)

*The Birth of a New Era.**

ONCE again, as in the world-shaking crisis of two thousand five hundred years ago, opens a new era for humanity, alike in the relations between East and West, and in those equally important between the hyperborean or fair races (yellow, red, and white) and the equatorial or dark.

A new era of wardom or peacedom?

The vital question for the human race is this. Shall this new era be an era of multimillenial peacedom † and evolution, of sympathetic and world-wide co-operation and noble emulation? Or shall it be an era of periodical crises brought about by greed and competition, by ignorance and hate, by jealousy and megalomania, in a word, of wardom † and revolution such as have, on the whole, characterised this last great era of world history,

* See the remarkable and deeply prophetic paper by the late Mr. Stuart-Glennie, read early in 1905 before the Sociological Society and published in "Sociological Papers," vol. ii. (Macmillan & Co., 1906).

† *Wardom* and *Peacedom* are not to be confused with *War* and *Peace* respectively. See pp. 197 and 256.

now so tragically passing, pregnant with the future world infant which it is about to bear?

How shall this mighty infant be nurtured, grow up, mature, and in its turn become hoary and pass away?

East and West in Contemplation.

Man both creature and creator.

In our reflections upon this soulshaking question we would urge a firm belief in the wisdom, each within its own proper sphere of prudent application, of the two maxims of conduct, perhaps the profoundest and loftiest in literature:

"*On the knees of the gods and goddesses lies the fate of man*"; this maxim is from the West. But from the East comes this contrasted saying: "*Within the closed fist of the babe sleep all the gods and goddesses.*"

Ancient though it is, the former well represents the scientific spirit of the modern Western world, envisaging man as a purely natural creature subject to inexorable natural law.

Equally ancient, the second maxim symbolises the sublime conception of Indian philosophy that, in the ultimate essence of his being, man is not natural but supernatural, not the creature of environment but its creator.

A superficial interpretation of modern world-history might seem to show that the West has applied the maxim of the East, and the East applied the maxim of the West.

A larger view of man's conduct, both in space and in time, embracing not merely relations with machinery and mechanical power, but also with life and personality, with religion, philosophy, agriculture and art, would perchance lead us on deeper reflection to reverse our first impression. The carnage, rapine and ruin that have raged in the West do not inspire us with any real measure of confidence in Western prevision and control over its future.

How are these two great maxims to be united in the conduct of life for the common weal and welfare of humanity, living and future? Wisdom combines apparent contraries as real complementaries. Action and reaction are equal and opposite; yet upon this very truth the effective design of all machinery is based.

Ancestral wisdom delivers the greatest maxims to us in seemingly contradictory guise of which individual prudence selects for use, now the one, now the other—master of both and slave of neither.

The freedom of man is indissolubly united with his fate, and none can trace the boundary between them; for do not man and his universe perpetually create each the other? All facts of nature, material, organic or human, are given as a chaos of things individual and unique; repetition is no more existent in physics than in politics; no planet retraces precisely its path; no stone drops twice in the same way; no leaf has its exact fellow; no war its image; yet the spirit of man ever divines abiding elements throughout all things and from the inexhaustible chaos ceaselessly strives to create an ordered cosmos.

Thus all laws, material, organic and human, are identical in kind and differ only in degree. In essence all laws run thus: "*If* this, *then* that"; freedom of choice there, necessity of consequence here; cause there, effect here; duty there, destiny here. So history is at once the record of unique experiences, the divination of scientific law, and the creation of art. All reality has its history, whether of matter, of life or of humanity; and in man alone, as simultaneously material, organic and human, all laws are indissolubly and eternally commingled.

CHAPTER II

WORLD MOVEMENTS IMMEDIATELY PRECEDENT TO THE WORLD WAR AND CULMINATING THEREIN

East and West in Action.

INSPIRED at once by the peaceful female spirit of the ancient Confucianism, and also by the complementary male spirit of the warlike Samurai (as incarnated in the "Yasukuni Jinsha" Shrine of Tokyo*), the Prince of Mito (1622–1700) directed a number of distinguished Japanese and Chinese scholars to prepare a national history. There resulted the historical and prophetic work, the Dai Nihonsi ("History of Great Japan"). This famous work together with the profound study of the evolution of Japanese government by Arai Hakuseki (1657–1725), statesman and scholar, and the rich epic history of Rai Sanjo (1780–1833), planted in "*The Elder Statesmen*" the fruitful internal seed, intellectually passionate and therefore mightily moving and increasingly creative, which, co-operating with powerful external western economic factors, ultimately led to the Japanese Restoration of 1867–1868, with its consequent assimilation of Western civilization, unprecedented in rapidity and extent.

The dream creates the drama.

A generation later followed the Russo-Japanese War.

The reverberant victory of the empire-seeking Far

* Where are deified and worshipped all the spirits of Japanese officers, soldiers and sailors.—(Gonnoské Komai.)

East in this epoch-making conflict some ten years ago reawakened the whole of the vast East to an increasing vivid memory of its ancient successful conflicts with the West, bent back the longest land-arm of grasping Europe, and re-lit the smouldering fires of Panslavism —itself in turn to kindle into fierce blaze Panteutonism, with its apparent attempt towards the spiritual and temporal hegemony of the world, through the unexpected sequel of the Balkan Wars and the simultaneous decline in the prestige of Turkey, the long secret but now openly confessed ally of Panteutonism.

The further resultant menace to the world influence of the Pan-Angles (interplexed with North America), the Pan-Latins (interplexed with South America), and the Pan-Hellenes (or Neo-Byzantines) at length issued in the world war, in which the Far, Middle and Near East also engaged, with the Muhammadans of Africa, Arabia and India ranged partly on one side as Pan-Arabian and Pan-Indian, partly on the other as Pan-Turanian.

* * *

Britamerindia.

That consummate master of statecraft, that great world citizen, Benjamin Franklin, pierced through the veil of periodic misunderstandings between Mother and Daughter to a convinced belief in the far distant confederation of all English-speaking peoples as the natural evolution of ultimately recognized identity of their world mission and world interests. We venture to suggest that any such confederation or commonweal might fitly bear the name of *Britamerindia*,* uniting either the whole or the characteristic part of the names *Britain*, *America*, *Erin* and *India*.

The opening of the Panama canal, the recently acquired Oceanic colonies of the United States, both intimately interwoven with the policing of the seas, are

* An alternative suggestion is made as to the use of this name on p. 286.

facts pointing with potent persuasion towards a future realization of the Franklinian ideal.

* * *

Towards this world-crisis, the steadily increasing spread of the Western movement commonly known as the industrial revolution, consequent upon the introduction of the machine art, itself the child of modern discovery in material science, unbalanced by corresponding advances in spiritual sciences and arts, has, in all its manifold aspects, been a strongly co-operating factor, both international and intranational.*

The machine-age.

* * *

The far-sighted prophets of humanity have repeatedly taught us that each great conflicting contact between East and West has ever been and would continue to be a world crisis—both the resultant of antecedent conflicting contacts, religious, philosophical, social and economic, and the forerunner of new eras in those same wide activities of mankind.

* For an original, powerful, and deeply ironical essay on this set of factors see Thorstein Veblen: "The Theory of Business Enterprise" (Charles Scribner & Sons : New York, 1904).

CHAPTER III

THE FUNCTION OF A CRISIS IN THE LIFE OF NATIONS AND THE LIFE OF INDIVIDUALS

WE propose at the outset to deal briefly with the function of a crisis in the life of nations and the life of individuals in a series of suggestions largely in the form of aphorisms, as being expressly designed to challenge and stimulate reflection.

The life of nations * may be justly compared in many important respects to the life of individuals, and perhaps most fruitfully in this characteristic that each alike passes commonly, if not universally, through periodical crises of which the issue may be a rebirth heralded by the throes of regeneration, or a dissolution presaged by the pangs of final disorder.

Through such a crisis so many of the nations of the world, great and small, appear now to be passing, as to constitute in its general effects a veritable world-crisis.

Now a nation is itself a union of individuals in their respective manifold groups by families, urban and rural, by occupations and by institutions.

In a large view of time and place, the mutual relation of these unites indissolubly the life of the whole, the life of the group, and the life of the individual.

* This section was written some months before the outbreak of the war, which is itself the revelation of symptoms forced to the surface by inner disease and forms the terrible culmination of a long preceding period of increasing crisis. Nothing happens to men or nations in which they have not part; the whole world is therefore responsible for the crisis, though the majesty of time alone can justly distribute the degree of responsibility and the commensurate penalty, individual or collective.

Thus it may be prudent and profitable to consider carefully lessons derivable from any such just comparison between the life of the individual and the life of the nation.

A crisis, whether in the body and soul individual, or the body and soul national, throws the subject thereof upon all its resources.

Out of the many instincts of life, two of the most fundamental and potent are particularly stimulated into an activity that is abnormal and intense.

The one is the memory of the past: the other is the vision of the future.

A crisis is a realisation of the actual present, so profound in its nature as to awaken the deepest slumbers of memory, and so lofty as to demand the strongest wings of vision.

In respect of their action, these instincts of each human being, man, woman, or child, may be conveniently named the CONSERVATIVE and the CREATIVE respectively.

The Conservative is the instinctive activity based upon the memory of the past, whether moved by love or hate; the Creative is the instinctive activity based upon the visions of the future, whether moved by hope or fear.

Good or evil must be the fruits of either instinct.

Each may operate from within the narrowest limit, looking only from one hour to the next, through any range up to the widest view, backwards and forwards, of the statesman and the prophet. The proportion in which these two instincts are united in human beings exhibits the greatest variety.

From the marriage of the past with the future spring the moments of the present in perpetual succession.

Inseparable therefore are past, present and future.

Thus, as are the range and potency of the memory of the past and the vision of the future so is the measure of man's insight into the present.

Within the limits, wrapped in unsearchable darkness, fixed by the very conditions of existence and known to men and nations under the name, full of mystery, beauty and awe, of NEMÉSIS or inexorable Fate, it is a wide choice that is offered to man and nation out of past records and future possibilities.

Men and nations are artists, subject truly to rigorous inborn character and its deeds (Karma), yet selecting freely, and fashioning as they will, their interpretation of the past and their rehearsal of the future.

But once the choice, the fateful choice, is made, men and nations move forward to the inevitable stage of the succeeding crisis.

Subject to the rigorous nature of character and its deeds is in truth that choice; for all experience exhibits the fruiting of deeds, and by the fruit the character is known.

So constituted is the universe that no single element of evil conduct but pays its price, however small, as the bill is gradually presented by Nemesis; whereas the characteristic of a crisis lies precisely in this—that the debt is large, the bill is payable in full and at once.

The resultant suffering and penalty of body and soul, individual or national, are, in a crisis, concentrated intensely in time; but the payment brings expiation in proportion, and thereafter equal illumination both of past and of future.

The supreme lesson for each man in his own life individual and for each nation in its own life collective, is to know and to realise that each crisis of suffering is the great opportunity offered by the divine grace, in its deep and moving outflow of energy into the souls and bodies of men, for a rebirth of life, through a new interpretation of the past and a new rehearsal of the future, together creating a re-orientation of the present.

After the crisis of disease follows the lysis of rebirth.

CHAPTER IV

WORLD HISTORY

1. *Prolegomena.**

IN its widest sense (as Kulturgeschichte) History is the systematised story of the Spiritual and Temporal experience and experiment of mankind. In experience, man is subject to his Environment; in experiment the environment is subject to Man. Experience and experiment are inseparable in life, yet for thought they may be distinct.

In its temporal or secular aspects History embraces the natural activities of man as a mechanism in a world of mechanisms, as an organism in a world of life, as a humanism (person) in a world of human society.

These three respective elemental types of the activity of man as a creature of nature (nature internal as well as naturè external), may be concretely and simply described in three corresponding groups; as manual and machine craft; as field and fold, forest and fish craft; and finally as family and folk craft.

Their respective underlying sciences are mechanology,† biology and sociology.‡

* Pp. 10–16, which may be studied with Chaps. XI. and XII., are difficult reading and demand patient study, so that readers may prefer to return to them if and when they have found genuine interest in the sections and chapters following.

† It is suggested that this old word might be usefully revived to cover the whole logically bound group of secular sciences known as mechanics, physics, chemistry, crystallography, metallurgy, geology, geography (so far as dealing with inanimate phenomena), astronomy, and so forth. While anatomy is partly a biological science, it is also, strictly interpreted, in still larger

In the spiritual world of eternity, History embraces the supernatural activities of mankind as an artist (or supermechanical being) in a world of beauty and ugliness; as a teacher (philosopher, or superorganic being) in a world of truth and error; as a priest (or superhuman being) in a world of good and evil.

These three types of activity of man as creator of nature (again embracing nature internal to himself and nature external) may be concretely and simply described as art-craft, as culture-craft (education), and as priest-craft.

Their respective underlying knowledges or sciences are esthetology * (æsthetology), psychology, and theology (science of religion).

Every man, woman and child has inherent capacity in all six spheres of activity herein enumerated, being

part logically a branch of mechanology. The revival of "mechanology" in this wide sense would serve the further important function of welding into firm unity these at present all too isolated specialisms. Half a generation ago the author published, after considerable opposition, with Professor Bone, "A Memorandum on a School of Metallurgy for the North of England" (Sunderland, 1902), demonstrating the rapidity with which Germany was even then outdistancing England in this group of "key" industries (to use Mr. Mackinder's illuminating word). Amongst the several causes of this relative loss of progress was one least suspected—the divorce in prevalent thought, scientific and industrial alike (for in deep significance they were equally to blame) between chemistry (especially its crystallography) and engineering; the failure to see and act upon the principle that chemistry is the engineering science of the atom and that therefore engineering is relatively impotent without the latest fruits of chemistry and of crystallography in particular. This reciprocal ignorance of science and industry has cost Britain dear in lives and money in the present world struggle. Similar criticism is justified in other pairs of branches of "mechanology."

‡ Under this name are, in accordance with increasing use, included the whole logically bound group of secular sciences known as politics and economics, law and morals (custom), folk-lore, anthropology, human geography, and so forth. Geography itself, in broadest sense, is the science of earth as conditioning man; and thus unites the three natural sciences of mechanology, biology and sociology alike in their spacial and historical aspects. See also p. 177, fn.

* This old word might be usefully revived to cover the science of artistic activities throughout the life-cycle of man and as therefore embracing not only what is signified commonly by æsthetics but also the play of childhood.

potential mechanic, cultivator, and statesman; being potential artist, philosopher and priest: but in actual development one capacity becomes dominant in general as the vocation or occupation.

In a word, man complete is a microcosm of which the macrocosm is man's universe.

These six sciences evolve in complementary pairs. Esthetology (æsthetics) and mechanology (mechanics) form the fundamental pair; psychology and biology form the central pair; theology (ethics) and sociology the supreme pair.

The spiritual sciences create absolute standards for the corresponding natural sciences: that is the spiritual sciences are normative.

Though these elemental activities of mankind may be considered divisible for practical purposes, yet in every single act of life profound analysis is able to distinguish the presence of all six elements.

Thus the activity known as government involves artistically designed machinery (men being works of art and mechanisms); government also involves organisation (men being regarded as healthy animals and rational beings); it also finally involves administration * (men being regarded as simple citizens in families and folk with their supremely ethical, religious characters and activities).

Government.

Hence it comes about that each of the six elemental sciences (science being essentially man's reflection, clear, massive and systematic, upon his daily work) both influence and are themselves influenced by the conduct of government of whatsoever kind, in all its stages of evolution.

* Administration is literally the "ministering unto." It implies in the ruler a deep and abiding humility that is open to all truth, suffers with all souls, and therefore dares all things in action for the common weal. The underlying norm or ideal was impressively epitomised by the great Pope Gregory in his description of himself as "Servus Servorum." We are reminded of a saying still more ancient: "Rulers are the servants of humanity, and humanity is the servant of God."

There is indeed discoverable, upon sufficiently acute and comprehensive inquiry, a rythmical action and reaction continually subsisting between objective activities or crafts such as government, and the subjective activities or sciences of mankind, however isolated and independent the inner and outer worlds may at first sight appear.

Thus, confining our illustration to modern centuries in the western hemisphere, it is not difficult to cite far-reaching instances in support.

Homo faber, or L'homme machine.*

The revelation of the more intimate mechanism of the solar system brought about by the labours of Copernicus, Galileo, Descartes, and Newton (themselves standing upon the shoulders of their giant predecessors, the ancient Hellenic mathematicians and astronomers whose works had been handed down with additions by Hindu and Arabian scientists during early mediæval centuries) was based upon the scientific system of interpretation subsequently known as the Newtonian. **Man as a mechanism.**

This revolution in the scientific conceptions of Western Europe strongly influenced the famous line of philosophical and political thinkers, such as Locke, Montesquieu and Franklin, all three of whom had thoroughly mastered the new mechanical interpretation of nature.

As a result, eighteenth century conceptions of government in the United States, France and Britain, and to a less extent in other parts of Europe, were, partly with deliberation, partly and still more with unconscious imitation, modelled, in so far as this was practically possible with traditional conceptions, on the mechanism of the solar system as then interpreted.

* The Bergsonian name. Compare La Mettrie (1700–1751), "L'homme machine."

Thus President Woodrow Wilson * speaks of the Constitution of the United States as having been made under the dominion of the Newtonian theory, a fact supported by every page in the papers of *The Federalist.* He says of these pages, "They speak of the 'checks and balances' of the Constitution, and used, to express their idea, the simile of the organisation of the universe, and particularly of the solar system—how by the attraction of gravitation the various parts are held in their orbits; and then they proceed to represent Congress, the Judiciary and the President as a sort of imitation of the solar system. They were only following the English Whigs who gave Great Britain its modern Constitution . . . it was a Frenchman, Montesquieu, who pointed out to them how faithfully they had copied Newton's description of the mechanism of the heavens."

The economic and political application of the discoveries and interpretations of mechanical science at length developed the machine process, and this again ultimately led to the modern industrial revolution. This industrial development was based upon competition whence resulted an intense struggle for survival throughout all classes and ultimately throughout the nations of the world.

Homo animalis; and L'homme plante.†

In its turn, this social, economic and governmental development influenced powerfully—though in the main sub-consciously, through the general atmosphere in which they lived—the conceptions of biological thinkers. Whence finally emerged Darwin and his Continental predecessors with their theory, destined to dominate the latter half of the nineteenth century, of the interpretation of living

Man as an organism.

* "New Freedom," by Woodrow Wilson. Tauchnitz edition, 1913, pp. 49, onwards.

† La Mettrie also uses this phrase.

nature as a struggle for the survival of the fittest, ultimately crystallised into the Darwinian theory (though the specifically evolutional aspect of that theory also derives partly from Indian philosophy).

This again, in rhythmical process, reacted upon society, industry, and government; and following this line of interpretation we understand the significant place of the Darwinian philosophy in Teutonic evolution and the existing world struggle, culminating in the present world war.

Homo humanus, or L'homme sociale.

But Comte and his predecessors, Vico, Grotius, Bacon, St. Thomas Aquinas and Aristotle, to mention only a few of the greatest, saw clearly that man was not only a piece of machinery, not only a living organism, but a human personality; who, though subject as all things to the laws of nature, yet also could transcend and utilise these laws by wise co-operation with nature towards certain feasible objectives, and is thereby enabled with increasing measure to ameliorate the evils of competition by a widening spirit of co-operation, expanding and ascending from its primary roots in the family ultimately to embrace cities, regions, nations, races and humanity itself, past, present and future.

Man as a humanism (or person).

The conduct of government in its secular or temporal aspect is thus seen on deepening reflection to involve an understanding of all three interpretations of nature, the Newtonian, the Darwinian and the Comtian.*

Man as simultaneously machine, organism and person.

The corresponding interpretations of the universe that should in addition underlie the conduct of government as sacred* or spiritual deserve equally thorough investigation during the succeeding

* The philosophy of Comte, comprehensive as it was, misunderstood and ignored the value, influence and legitimate function of Theology.

centuries; we suggest a humble contribution to the beginnings elsewhere.*

So long as mankind is but dimly conscious of the rhythmical laws of its own development, so long will government of all kinds be periodically subject to violent revolution and destruction in place of harmonious evolution and noble involution.†

* * *

The extremes to be avoided are a government based on the old humanities, neglectful of the material and biological sciences, and thus growing lax and enfeebled in material power and the strength and foresight springing from agricultural science and art, the pith and central idea of organisation; or again an excess of reliance on the might of material science and systematic organisation with neglect or even contempt of man as a person with moral customs. The great statesman will regard administration as supreme, organisation as central, and machinery as fundamental. For each the corresponding science is indispensable, implying a breadth of sympathy embracing sociology, biology and physics. "What is the use of it all," said Gladstone to Faraday, showing him one of his great electrical discoveries. "Well, you can *tax* its industrial fruits when I am dead," replied Faraday. To all sound and sane efficient and enduring rule and government this maxim is indispensable though not sufficient: *humanise, organise and materialise. Energy without organisation is futile: organisation without humanity is fatal.*

Government must humanise, organise and materialise.

* See Chaps. XI. and XVI.

† See pp. 39, 53, 63 *et seq.*, 169, 182, 223, 287, 298.

2. *The Condition of the Evolution of World History.*

Oral or written, the story of man is told by himself and moulded by the dominant spirit of interpretation.

History a union of fact and myth.

From an infinitude of facts, certain are selected for transmission. This selection is artistic in its nature. The choice is partly deliberate; it is also partly determined, unknown to the story teller, by the predominating values and atmosphere in which he lives, social and political, racial and religious, scientific and industrial.

This latter element is justly known as myth from its highly poetic quality and its creative influence.

Selection implies rejection; yet the universe is one. Thus into the majestic presence of a complete fact man never ventures, not even, as modern research establishes, in the realm of mathematics, once deemed perfect in its logical rigour.* This negative characteristic of history thus itself also exhibits the element of myth.

Hence the perennial bias of history, that poetic union of fact and myth, so indissolubly fused that none can say with confidence where one element ends and the other begins.

This bias diminishes as the view taken deepens in the soul within, and ranges farther in time and space without. Thus may man approach though he can never reach world history, as the interpretative story at once of the evolution of the great world without and of the equally complex small world within, each world giving life and significance to the other.

The more we examine contemporary history, in whatsoever sphere of man's activity, the more irresistibly are we led to the conclusion that it is still substantially masculine, national and racial, and even at its best limited by values and atmospheres that are continental (Asian, African, European or American).

East or west, each great group believes its own

* See Chap. XI.

story to possess exclusively a dramatic continuity; the story of others to consist only of isolated incidents, scenes or acts.

The history of a drama alike world-wide and continuous is not yet, inasmuch as no single myth has yet become world-wide. Only in the light of a veritable world myth and along therewith will world history evolve.

Of such a myth a veritable world religion must needs form the central core, itself of such a kind as to offer an acceptable interpretation of the sense, meaning and significance of the separate stages or periods of the life-cycle of man and woman individual, and of man and woman social expressing themselves through groups. Such groups are either geographical, as in city, region, state or nation; or institutional, ranging from the simple family through occupational, political, religious or other societies, unions or federations within a single nation up to vast combinations interwoven with many nations. All these groups, from families up to whole eras of culture and civilisation themselves, are born, mature, and ultimately pass away as does the individual man himself.

Interdependence of world religion and world history.

Even as regards the geographical groups history is still predominantly masculine, national and racial.

Still less advanced is the history of institutional groups though now showing promise of rapid growth.

In a word, world history is as yet far from existing.

The consequences to mankind of this failure hitherto to attain a world consciousness of its own historical evolution are far reaching, subtle and profound. *It is as if the science of mechanics and the art of engineering had no standards of measurement.*

The ideal characteristics of world history would appear to be impartial objectivity, universality in geographical and institutional treatment, and sane artistic perspective.

3. *Illustrations of National, Racial, or Continental Bias.*

Of Eastern bias in historical writings and traditions perhaps it becomes not a citizen of the West here to speak.

Of Western bias there are, however, examples so deep and far-reaching that it may well conduce to our humility frankly to confess to some of them.

First may be stated the way in which so many generations of historians of Western Europe have robbed the Byzantine Empire of the Near East of so much of its glory.

The second may be seen in the very first sentence of Gibbon's justly famous "Decline and Fall of the Roman Empire": "*In the second century of the Christian era, the Empire of Rome comprehended the fairest part of the earth and the most civilised portion of mankind.*" Here we have in one short sentence the pride of the West at its height.

For the third instance we would point to the degree in which racial vanity has permeated the whole science of philology, and led Western philologists to place their own European languages and cultures without question above those of all others.

Consider again the far too frequent neglect of the influence of Europe upon Asia and the historical influence of Asia upon Europe through the vast instrumentality of the genius of the Slavs. Expressing itself largely through the world routes provided from time immemorial by those colossal waterways, the Dnieper, the Don and the Volga, which, in co-operation with the great open Russo-Asian steppes, have placed the peoples, extraordinarily diverse in temperament and experience, who have successively inhabited these vast regions, in a position to mediate, alike in the temporal and spiritual worlds, between East and West, this influence is destined in all probability increasingly to rival that enjoyed by Greece and the Mediterranean peoples.

Finally, in spite of the splendid work of the Dutch scholar, Dozy, over fifty years ago, on Spanish Islam, the greatness of the Arabic period of European civilisation and culture with its influence upon Europe is too often strangely ignored in general European history, particularly in respect of the debt owed to its university developments.

It is probable that, with the sympathetic co-operation of a peaceful Europe, the large final fruits of the present world crisis may be the recovery by the Persians, Hindoo Muhammadans, Egyptians and Arabs* of leadership in Islamic religion with ultimate rebirth of their ancient culture glories. Simultaneously in co-operation therewith may be brought about the regeneration of Europe itself and of the Turkish race —a great race and capable of noble achievements under happier auspices than the general suspicions of the West; a race that has given rulers to dominions stretching from the Far East to Central Europe and to Western Africa, to China, Turkestan, Thibet, India, Persia, Mesopotamia, Armenia, Syria, Egypt, Russia, Hungary, and the vast empire of the Caliphs; and amongst them rulers not alone in war renowned, but also in the arts of peace, as was Solyman, "The Magnificent" (Suleiman II.) (1496–1566), great lawgiver and judge, generous patron of philosophers and poets, and munificent employer of architects and artists. A new era may dawn, alike for Muhammadans and the whole world, by a peaceful separation of the spiritual from the temporal power, yet also by co-operation of the two, gradually evolving throughout the world.†

* Since this was written the Arabs, under the Grand Sherif of Mecca, have revolted against Turkish rule.

† Though the Sheikh-ul-Islam is an officer of the Sultan, in his *fetva*-issuing power he is independent; the Sultan himself (as with Abdul Hamid) may be deposed by a *fetva* issuing from this chief Mufti or canon-lawyer, representing the spiritual power.

CHAPTER V

THE GENUINE COSMOPOLITAN OR WORLD CITIZEN; AND A WORLD ORDER OF HONOUR

THE stress we lay upon the increasingly great need of evolving a just world view is not to be confused with the advocacy of a weak and vacuous cosmopolitanism of which the ordinary type is the relatively unreal and doctrinaire state of mind, thin experience and resultant view of the man who ignores the just interests of his own nation, perhaps even prides himself on having crushed his nationality beneath recognition under a supposed cosmopolitan temper.

It is not cosmopolitanism in this effete sense that is urged. Rather have we in mind the once great meaning of the word, as represented by a Socrates in ancient times or a Franklin in modern, whose cosmopolitanship was a veritable world citizenship.

This implies, when interpreted in its proper historical valuation and evolution, that the attainment of world citizenship is an arduous, slow and deliberate achievement, never fully and completely realised. A true cosmopolitan, whether man or woman, must be first a devoted member of the family, then a good citizen in the life of the town and region, an ardent patriot, a cultured member of the Western or Eastern institutions woven into the particular civilisation in which he or she is born. Thus, in its various degrees of development, life is filled in each period to the brim with rich experience of the gentle ties of family, of the progressive activities of the city, of the conservative growth of

stability of the surrounding rural region, so that the very soil of the native land becomes part of the soul, and the millenial institutional traditions and sentiments of his own race and of the racial families nearest to his own grow up within the citizen luxuriantly, if also under due discipline.

It is only then, when such a man (or woman) feels that for any one of these he would, if necessary, sacrifice his life, and still more for all—it is only then that he is prepared to begin his apprenticeship to that august assemblage of human beings, past, present and future, which we know as citizens of the world of humanity, in which, if the interest and ideals of the family are fundamental, and the honour of one's native land central, the interest and ideals of the whole of humanity, past, present and future, are supreme.

The family is a part of the city, the city is a part of the region, the region is a part of the nation, the nation is part of the state, the state is a part of humanity, and humanity itself is composed of families each with its individual members, past, present and future.

There is no point of the unending spiral of interrelations, vast and continually increasing, at which one can stop and say this is the one vital element, neither individual, nor family, nor city, nor region, nor nation, nor state, nor race, nor past, nor present, nor future. No religion, philosophy, government, or any system of thought or action whatsoever can raise any one element above, and at the expense of, any of the others with justice, wisdom or safety.

This it is that we mean by world citizenship.

It may be, and will be if men so determine, that as the centuries advance, generation upon generation, there will arise, by confederation of institutional groups, as states have evolved from family groups and nations, some great institution, group or other organisation by which women and men are admitted into world citizenship, are acknowledged to be true citizens of the world,

with all reverent ceremonial and rite, befitting so solemn an occasion. It may be that the highest honour the world can grant will some day be this: That a woman or man attains the title of World-Citizen. Such should be the supreme Order of Honour of Humanity.

A Supreme Court of Arbitration.

From such a group of world-citizens, doubtless, will ultimately arise the final form of that supreme court of justice which the world has so long yearned for, of which it has felt the burning need, and perhaps never more than at the present moment. For thereby, perchance, alone will all individuals, nations, and states feel that they possess citizens who can be trusted as genuine arbitrators, having united in themselves the two conditions indispensable for trustworthy arbitration: impartiality in the matter in question, and yet, what is so rare to find therewithal, the richest experience in the root of the matter dealt with—in a word, arbitrators, impartial and informed.

To such a court with safety could appeal the meanest Individual against the injustice of an Empire. Only once in ancient days do we hear of an "*Athanasius contra Mundum!*"

A Calendar of Great Citizens.

Truly a court of supreme arbitration already exists; but it is a Court of the Dead. For do not all of us, individuals, families, nations, and states, abide in the end by the judgment we believe is, saving the Divine, the highest that can be passed upon our conduct: the judgment that steals in upon our souls, individual or collective, when we contemplate with reverence and gratitude the great characters, men and women alike, that stand out and forth in the wonderful story of humanity. To all races and nations belong these characters of the great Dead.

More than half a century ago Comte selected a calendar of great men.* As the ages roll on women will number therein in equal prominence with the men, at least as the mothers if not also otherwise. The spirits of the great live for ever, and all noble world citizens will join the sacred family of the Great Dead.

* "The New Calendar of Great Men," edited by Frederick Harrison (Macmillan, 1892). A new edition, including the nineteenth century and more fairly cosmopolitan and containing a far greater proportion of women, would give an invaluable work fresh life. Thus we would suggest more attention to non-Aryan races, particularly yellow, black, and mixed races. Few are aware of the extent to which the most ancient of all civilisations and cultures, the Egyptian, is negroid; and how thereby the whole of living humanity is indirectly indebted to negro contributions both racially and intellectually. (See "The Negro," by W. E. Burghard du Bois; Henry Holt & Co., New York; 50 cents. The author predicts a Pan-African Renascence.)

CHAPTER VI

THE PRESENT UNIVERSITIES OF THE WORLD ARE PREDOMINANTLY NATIONAL IN TYPE AND FUNCTION

THE most constant, deep, and far-reaching factors underlying the development of crises in international relations are those whose existence are commonly least suspected. Of these factors one of the most important appears, on sober reflection, to be long continued national bias in the presentment of history. The substantial corrective can only be world knowledge and world sympathy, embracing, indeed, a noble patriotism yet not narrowly co-extensive therewith, but extended by world travel; together culminating in the production of genuine world history, characterised by impartial objectivity, universality in geographical treatment and sane artistic perspective.

Were mechanical science deprived of standards of measurement valid throughout the globe, what would be the condition of the art of engineering? It is earnestly submitted for consideration that such is the condition of the art of statesmanship, inasmuch as its underlying historical science has so far lacked a standard of assessment, valid throughout the world.

Valiant endeavours have, it is true, from time to time been made by great scholars to compass the achievement of such a world history. These endeavours are indispensable for further advance.

But the more penetratingly the evolution of universities and schools is studied, from the earliest recorded case of the Babylonian University, several millenia before Christ, down to the present European growth of

provincial universities and national schools, the more clearly grows the evidence that universities and schools have become increasingly and predominantly spiritual organs of the national or imperial consciousness—truly noble and indispensable organs, yet essentially national or imperial in spirit. However appearances may go to the contrary in the piping times of peace, the outbreak of any substantial international conflict has, we believe, repeatedly and invariably shown from the end of the mediæval age and the definitive establishment of modern states downwards—and the present world crisis is no exception—the truth of this statement; that inasmuch as universities and schools have now definitely become the organs of national consciousness in their supremest function, it has not been possible for these institutions to attain objective impartiality on a world-wide scale in their historical and other sociological products.*

A further step in the evolution of universities becomes therefore clearly necessary. This would appear to be the development of a veritable world university in closest sympathy and co-operation with already existing universities, but completely independent of any nation or state.

Such a university could wisely arise only under the satisfaction of certain conditions, spiritual and temporal, and then only by slow and gradual growth.

Certain truths must sink deeply into the souls of those who would worthily co-operate towards the establishment of such an institution. Throughout the world, it must be realised, human nature is identical in all its characteristic qualities and features, northern, southern, eastern, and western, dark and fair.† The

* This limitation even in physical and biological science may be realised by reflection along the line of argument developed in Chap. XI.

† As to the possibilities of gradual intermixture of races there is much to be said on both sides. It may be noted that, in Sir Harry Johnstone's opinion, a fine mixed race is evolving from white and black in Sierra Leone.

plain man and woman in Europe is the plain man and woman in Micronesia. Genius itself, the highest revelation of humanity, recognises its fellow in all colours, climes and climes. The key of Humility alone can open the door of Justice and admit to the threshold of the hall wherein She sits enthroned. No living thing can be judge in its own cause—nor individual, nor institution, nor state: nay, not even the whole human race itself, past, present and future, whose supreme Court of Justice is GOD. An institution may judge an individual member, a state may judge an institution, humanity may judge a state, and in this sense alone stands fast the ancient belief—

"Securus judicat orbis terrarum."

CHAPTER VII

THE IDEA OF A WORLD UNIVERSITY *

The more perfect and ordered the record of tradition, the more the human race becomes as one man, always living, always learning.
(PASCAL.)

THE verdict of history points clearly to the union of science and art, of culture and polity, of theory and practice, as the necessary complements for the welfare of humanity.

To the Hague Tribunal on the temporal side is surely needed its necessary complement on the spiritual side. For the common weal of man the spiritual power must grow step by step with the power temporal.†

Behind the Hague Tribunal at its future maximum of effectiveness as the supreme judiciary of a distant World-State or International Council, will doubtless ultimately emerge a police or other military force, supporting thus the judgment of the Tribunal with the international arm of the law, herein corresponding to the arm which in its ultimate appeal, is, within a nation or state, the militant forces themselves. In a word, the power of such a tribunal rests predominantly and ultimately within its own sphere on temporal persuasion, for even the most formidable military force is really of this nature.

It is, therefore, desirable that such a tribunal should be co-operatively and critically balanced by an organisa-

* An article by the author, entitled, "A Plea for a World University," is being published by *The New Republic* (New York).

† Or equivalently, the real and the ideal; the natural and the supernatural; see also Chaps. IV. and XI. for fuller analysis.

tion of a spiritual kind, whose ultimate power therefore, within its own sphere, depends on spiritual persuasion.

In supreme synthesis, when both spheres are considered, all power comprehensible to man is a union both of the temporal and of the spiritual; but for practical human purposes the manifestation of actual power is commonly either predominantly spiritual or predominantly temporal; and may, therefore, be named accordingly.

A progressive balance and a balanced progress are the indispensable conditions of the common weal of humanity, alike in the individual citizen, the home, the city, the region, the nation, the state, the race; and this both on the temporal and on the spiritual sides of life. Only thus can a fair passage be steered between the extreme of despotism and the extreme of anarchy; between the tyranny of the few and the tyranny of the many.

Joseph the prophetic dreamer foreruns Joseph the Viceroy; great movements are built on great thought; and so preceding the great movement of national liberation of the French Revolution (1789) was the famous Encyclopédie (first volume published 1751). This was enshrined in books.

For the larger world movement, but co-operatively evolutional instead of antagonistically revolutional, of which mankind is beginning to dream, the obvious continuator of the books of the great Encyclopédie can scarcely be otherwise than a University of living world-cultured teachers, men and women alike, from the seven continents of the globe, substantially representative of all races and of the broad social and occupational classes in each race, embracing old and young.

The great French initiators of the scientific Encyclopédie made admirable efforts to achieve an objective impartiality alike in history, science, and art. But experience shows incontestably that even in this, the most successful up to that period, and perhaps we may say

the most successful still, the treatment was predominantly national and in so far biassed ; for the spirit of nationality, stimulated by the French Revolution into the final debased form of Chauvinism, in this respect reacted unfavourably upon the conditions and the organisation of universal scientific and educational exhibitions indispensable to the development of world history.

Discords within nations, and discords between nations, are due primarily, though by no means entirely, to ignorance, just as with individuals. "I dislike Mr. A." once said the genial Lamb. "But you do not know him," said his friend. "No," replied Lamb, "if I did I should like him!"

Ignorance also brings in its train a dearth of reliable and experienced arbitrators.

Some of the Functions of a World University.

There is then a rapidly growing need of a World University amongst whose functions would be these: To re-right world history as well as to re-write it ; to fix a universal origin for world history dates ; to organise a truly representative world library ; to consider the adoption of a universal money (an idea put forward by Count Gasparo Scaruffi so far back as 1582, and advocated strongly by Comte), the supreme temporal invention of man ; to organise a uniform, comprehensive, and impartial organ of international journalism through which nation can speak honestly to nation ; to select from ancient or existing tongues a world language * as its instrument to become the supreme spiritual creation of man ; to evolve world science (of which the first steps might well be the erection of the great terrestrial globe designed by Réclus for the Paris Exhibition of

* The supreme creators of language are poets and children, and these are passionate patriots. Thus world poetry is rooted in the soil ; and a world language must evolve from a tongue that has uttered world poetry.

1900); to organise universal exhibitions, educational, artistic and scientific, of regional design and town-planning; to recreate the ancient Olympic festivals; to inspire world art; to contribute to the development of a world literature and a world religion; and to send forth sages, organisers, architects, artists, journalists, arbitrators, teachers and missionaries, men and women alike, each of whom has learned to harmonise nobly cosmopolitanism with patriotism and civic passion with both.

With the object of promoting world travel with world study, and a true patriotism with both, it would seem desirable that the annual sessions of such a university should cover only half the year, say for preference the six winter months.* This condition would be valuable both for students and for teachers. Some such periodic arrangement would indeed be indispensable to ensure balanced progress of the institution between the two dangerous extremes, the one a sterile divorce from national life, the other an excessive immersion in the national affairs of the world. True cosmopolitanism, or the brotherhood and sisterhood of Humanity, is the last stage in a precedent brotherhood and sisterhood of family, city, region, nation, race, and continent; here would lie perpetually the main seeding bed of world culture in a world institution. Interchange of Professors as between existing Universities themselves, and between these and a World University would become an increasingly important feature of academic development.

The deep reverence for the wisdom of hoary age in the East will offer additional scope in this direction as well as in range of age of students in attendance. This range is again steadily widening; and it may be safely stated that the education of the future will offer fitting spiritual food for every period of the life-cycle

* The author has already proved the practicability of this plan in a college of which he was the first Principal.

of man, for childhood, adolescence, maturity, mid-life, senescence and eld.

Its geographical situation should be at the very cradle of world-civilisation and culture on territory neutralised, independent, and comparatively easily accessible.

There is but one situation satisfying these conditions, an island in the Eastern Mediterranean near the three old-world continents of Asia, Africa, and Europe.

It should be not the least important and significant function of the peace conferences following the present world war to take this need into full and sympathetic consideration, and either allot an island for the above purpose or take such steps as will lead to the ultimate allotment of such a position.

Our reasons for preferring an island site are many; some of them obvious; but not the least is the desire to avoid complications that tend to arise in crises at the moment when freedom is most needed respecting the position of representative envoys in those cases where (as with the Vatican, or the Hague Tribunal) the site is substantially an enclave. A World University should be the equal ally and friend of all universities. Situated in an enclave, to some at least it becomes thereby an exclave. On an island site its freedom is more assured; though never absolute.

World Citizenship and a World University might reasonably be expected to evolve each other step by step.

On such an island might well arise in the due hour of patient time, some nearer approach than has yet been reached to that Perfect City long dreamed of by Hebrew prophets and Muhammadan poets, by Chinese sages and Hindoo saints, by Hellenic philosophers and Christian statesmen.

Two final observations may be added.

Even here must mankind beware of the ultimate danger of a spiritual despotism more oppressive in its

final consequences and more enduring far than despotism of a temporal kind. The question of financing such a world university would therefore demand the most searching inquiry. Herefrom would primarily spring the seeds of the tree of fresh and vitalising knowledge; or the Upas Root of the tree of evil, stagnation, and reaction, for the borrower is ever a slave unto the lender. It is not easy to see any adequate policy which would not include as an important element of finance, as also an element indispensable to the deep and wide culture of the teachers, the substantial maintenance of such a university by the conduct of simple husbandry, art-crafts and healthy types of simple manufacture on a small scale, each selected of a kind traditionally and economically suitable to the region of foundation, such as silk weaving were Cyprus chosen. Thus in spirit it would follow the ancient honourable and marvellously successful tradition of that Catholic community which is one of the most practical, one of the most intellectual and withal profoundly religious, thus best harmonising body, soul and spirit, the Benedictine (St. Benedict, 480–543 A.D.); yet with an element added, offering scope either for loftiest glory or deepest shame, a sisterhood of woman, not only a brotherhood of man.

Its Functions clearly Designed will evolve its Fitting Organs.

A clear and steady conception of the functions to be performed will determine and evolve the organs successively necessary for the performance of those functions; while the measure of imperfection of those organs will be as the measure of departure from the spirit animating the foundation of the institute.

Conditions of its Permanent Usefulness

Receiving from existing universities and their knowledge of the spirit of the past an indispensable

stimulus of culture, a World University would return the gift in form more general. It could suggest co-ordination and economy of effort over the unlimited sphere of knowledge: it could indicate fields specially calling for cultivation and research. It could offer substantial prizes and travelling studentships, and evoke once again the noble aspects of the wandering scholar, bringing to re-birth in richer form the old humanist, whose culture, supremely culminating in world statesmanship, temporal or spiritual, was soundly based upon the elemental sciences of nature and of man.

By the courageous maintenance, both in spirit and in form, of a strict neutrality alike in religion and in politics and all questions where party spirit obtains, a neutrality not dead born from coldness but inspired by an inextinguishable flame for justice, aloof but compassionate, illuminating both itself and the world in a steady non-consuming glow; by the wise renunciation of the temptation to win popular applause, funds or other support by the publication of showy but illusory schemes for the rapid regeneration or even amelioration of the lot of humanity; by rigorous confinement of its functions to spiritual work, the unmatchably hard labour of the discovery and revelation of truth in sympathetic co-operation with all those of light and leading throughout the world; by sobriety of appeal, convincing patiently those of good sense and most apt for enlightenment; by constant preparedness for failure, disappointment, blunders and ingratitude; by unshakeable conviction in the inherent identity and immutability of human nature, alike in its strengths and its weaknesses, throughout the ages; above all, by internal criticism, periodical and profound; and by humble and courageous courting of criticism from without, individual or collective; thus and thus only might such an institution as a World University, once firmly founded in however modest form, come at length to exercise influence of an increasingly wide, important

and noble kind, conferring such great benefits upon mankind that not willingly would the world let it die.

A Practical Appeal.

We venture to appeal to all universities, Eastern and Western, separately and unitedly, and to the general educational public of all nations, to urge upon statesmen, with unwearied courtesy, with eloquence all persuasive and sincere, the desirability, at the various international conferences following the world crisis, of initiating practical and suitable steps towards the foundation of a World University, on territory fitly chosen, neutralised and independent.

* * *

The need of a World University in the Evolution of Arbitrators.

Of all the functions of a World University we are inclined to place highest in importance its stimulus towards the evolution of arbitrators, alike geographical (as between nation and nation or state and state) and institutional (as between group and group, as of labour and capital, themselves either international or intranational, interstate or intrastate), arbitrators, both men and women, impartial in spirit yet intimately conversant with the history and existing circumstances of the matter in dispute.

In ultimate evolution arbitrators experienced in both spheres will become necessary for the realisation of an enduring era of peacedom.

Here a difficulty must be met. Only by passing through the experience of exercising arbitration functions in smaller social and geographical groups can men and women be obtained with the capacity of dealing with a world contention.

The cosmopolitan view of the world temporal and vision of the world spiritual can be gained only from

a lofty tower whose successive stories have been visited and whose guiding maps have been mastered by co-operative surveys and personal experience ; a tower whose basement is the family, and whose stories are successively the city, the region, the nation, the state, the continent, and on whose summit stand the trained world-citizens, true world arbitrators.

To this general problem of the evolution of arbitrators we now therefore purpose to address ourselves.

CHAPTER VIII

THE EVOLUTION OF ARBITRATORS *

"Nullus liber homo capiatur vel
imprisonetur . . . nisi per legale
judicium parium suorum . . ."
(MAGNA CARTA 1215, June 15th.)

"*Magna Carta had passed into the framework of Anglo-American law and had become just as much part of the law of the United States as of the law of England. In fact, one might say that it was the parent of all written constitutions. And in that way it was not only significant for ourselves, but it also had a world-wide significance as compared with all written constitutions.*"—LORD BRYCE.

IT is ever true, in greater or less degree, that man, as Hobbes affirms, is eternally at war with his neighour. Hence the clamant need for men and women whose function shall be that of meditaing or arbitrating between the bellicose or contending parties. How to produce such men or women is a problem that demands solution.

Great attention in the past has been paid to the production of specialists in all other spheres of thought and action; but in the future the consciousness of world leaders will be directed more and more to this new problem the fuller their realisation of the truth that a few trained arbiters are worth an army of the average type of specialists, necessary and valuable as these also are to the welfare of man. It is indeed the very ramification of specialisation in the world of occupation and the world of thought that has been one of the causes productive of the increasing need of arbiters; and at the same time this same cause reveals the reason of their rarity. For an arbiter must unite two functions so exceptional in these days—be equally a *specialist* and a *humanist*.

* This chapter of the study was finished in August, 1913, and intended for use at the Hague International Peace Conference of that year. It was, however, too late for inclusion amongst the papers to be read.

It is a truism to say that arbitration depends upon one of the most important characteristics of civilisation, namely, the realisation of *justice*. If, as a first and simple step towards a fuller and deeper vision of justice, we take Herbert Spencer's definition of that word to be the principle that every man shall have freedom to do what he will provided he infringes not the equal freedom of every other man, it is obvious that he (or she) will be the best arbiter who can decide impartially as to the limits of individual freedom, and who can clearly see where such freedom impinges on another's.

Such arbiters can and must be produced by a training commencing from early or youthful years, though here and there will be found one who partakes of the nature of the true poet in that "*he is born, not made.*"

But this conception, on close consideration, proves to have but the force and inspiration of a negative. It is the expression of a *natural right*. In these days of increasing use of violent and despotic force, this ancient conception of natural rights is not to be undervalued. Rather indeed do we foresee the revival of a much-needed school of thought and action that shall steadily and persuasively exert its influence towards the public realisation, individual, national and international, of the meaning, sense and significance of this great conception of natural rights of man and woman and child, in individual or in group.

It demands a rare and particular birth of mind to fill nobly the *rôle* of missionary to man in this field: a mind of legal cast and massive energy. But for the arbiter we have in view a still rarer birth is called for, a union of legal sagacity with spiritual insight. For to the conception of natural right with its negative inspiration we would join its ancient fellow and balancing correlative—*spiritual duty; for to each natural right corresponds a spiritual duty*. It is here we find in full measure the positive inspiration we seek.

For still, we take it, even in these days of darkness, stands fast the saying :—

"*He is the nobler being who will say, not 'Give me my rights' but 'Tell me what I must do or suffer.'*"

Not such suffering, we mean, as the bitter fruit of personal sin that cannot be escaped ; but such suffering as each at his highest can bear for the sins or welfare of others. Not for the Western type of justice only do we plead, but, added thereto, for the Eastern conception wherein justice embraces collective and vicarious duty, responsibility and suffering ; so that the "being" of this noble saying embraces any one or all of the elements of that hierarchy, individual, family, city, region, nation, state, race and humanity itself, as one eternal being in perpetual transformation by evolution outwards and involution* inwards. It is of this heightened, deepened and broadened sense of justice we speak when dealing with the problem of the education and training of arbiters.

There are clearly two great divisions of the problem, though the inherent nature of justice is such that the solution of each will aid towards the solution of the other. Arbitrators may be broadly divided into two kinds—domestic and foreign, or equivalently, intra-national and international. For convenience of backward and forward reference it is convenient to systematise the discussion of a matter so complex and disputable into numbered paragraphs and sections.

Part I. The Problem Stated.

1. The characteristics of civilization have been described from many standpoints ; of these, it will be agreed, stands high in importance the increasing realisation of justice.

Success in the realisation of justice depends upon

* See references in second footnote, p. 16.

many conditions. One of the chief is the existence of a person in whose character and experience each party to the matter in dispute has confidence.

Such persons are commonly known as "*arbitrators*" or "arbiters."

2. The parties concerned in the dispute may be two individuals, an individual and a group, or two groups: the term *group* signifying any combination of persons from a simple pair to the complexity of a nation, or even the whole of living humanity (as with Athanasius *contra mundum*).

3. The more complex the group the greater becomes, in general, the difficulty of finding an arbitrator.

4. For the realisation of justice between these manifold combinations through all recorded ages humanity has been slowly and painfully evolving appropriate types of arbitrators. This evolution has come about in part subconsciously and automatically, in part consciously and with deliberate intent.

5. A highly important type of arbitrators is commonly known as "*Judges.*"

With the functions of this type and its many varieties this essay is not directly concerned. But it is essential to the grasp of its thesis that close attention should be paid to the following facts:—

(*a*) In civilised countries there exist definite customs, schools, traditions, and institutions which have been gradually developed for the production of a sufficiency of this type of arbitrators (judges) for the affairs of life falling specifically under the law of the country.

Let us briefly refer to this as an "*organisation.*" *

(*b*) This "organisation" for the supply of "judges" is, in effect and speaking broadly, necessarily under the direction of the governing classes

* Not to be confused with the "judicature" itself which the "organisation" has grown into gradual existence to produce.

of the country, using the term "*governing*" in a tolerably well understood sense without attaching ethical significance thereto.

In striving, as civilised human beings, to interpret in a scientific and impartial spirit the social significance of (*a*) and (*b*) as affecting the relations between governing and governed, this third great supplementary and balancing fact must be constantly borne in mind :—

(*c*) In almost all systems of law the ordinary male citizen or freeman takes some part in the administration of justice (generally by means of "juries" in England).

Inasmuch as the conscience of every man seeks justice, sober reflection upon these three broad facts will doubtless view them as the practical instruments, necessarily imperfect, evolved by man to satisfy, so far as may be, these two cardinal principles :—

(*p*) Every human being shall be judged by his peers (equals).

(*q*) No human being shall be judge in his own cause.

Increase in the realisation of justice may, it is believed, be estimated largely by the measure of the success which the administration of law attains in harmonising the application to each concrete case of these two principles lying at the very core of all human justice.

In affirming this, regard is, of course, paid to the broad spirit of the principles, whereby the term human being embraces any single person (child, woman, or man), or any group of persons ; and in the case of child, woman, or man, individual, the "peer" is respectively, child, woman, or man.

6. But the rapid rise, under the special conditions of machine industry, of the modern types of "trade union" and other similarly organised groups of governed persons

(or classes) in the form of employees, and their periodical disputes with the governing classes (or groups) largely in the form of employers and their associations, have given rise to new forms of the old problem whose practical solution is becoming of rapidly increasing importance; the problem is, in fact:

How is Society to obtain in this sphere of dispute also a sufficiency of Arbitrators?

7. The central difficulty is again the harmonisation in this larger and more complex sphere of the previously enunciated principles (p) and (q).

8. The nature of the problem in hand may, perhaps, be grasped more clearly if we attempt its concentration in a brief set of postulates:

(x) An arbitrator is required to aid in the realisation of justice as between a large group of governed persons and a small group of governing persons.

(y) Each citizen belongs, in effect, either to the whole larger body of governed persons or classes, or to the whole smaller body of governing persons or classes.

(z) Neither group has full confidence in arbiters belonging to the other group.

On these abstract postulates some strongly qualifying observations based upon actualities are necessary.

They are all three—and particularly (y) and (z)—broad statements, of set purpose nakedly put, yet also with some deliberate ambiguity owing to the complexity of the circumstances actually obtaining in such disputes, where each one differs in many important respects from the others.

Further, there are the vitally significant qualifications: (i) that all citizens are under the law of the country and so belong to the "governed"; but also do they belong to the "governing" in so far as that law

is the gradual creation of themselves and their ancestors as citizens; (ii) that all citizens are human beings, and thus have necessarily the vaster part of their experience in common. Indeed, on the existence of these two last facts rests the practical possibility of any arbitration at all.

But when all is said by way of qualification, experience seems to show that these three postulates (*x*), (*y*), (*z*), or their equivalents, do point to certain unquestionable tendencies and difficulties in modern disputes; and, in the degree to which these postulates obtain in reality, to that degree rises into social importance a practical solution of the problem already formulated:

How is Society to obtain a sufficiency of Arbitrators, both Male and Female?

9. As a matter of fact up to the present time arbitrators have actually been found. But there appear to be substantial grounds for holding that they are not likely to be sufficiently numerous in the future; nor with striking exceptions, have they been so successful as is desirable in achieving reasonably permanent settlement of these disputes.

Too often is impartiality present but without concrete experience in the essential elements of the situation; while, on the other hand, concrete experience is too often present without real impartiality, especially in the case of women's trades disputes.

10. The points consequently to which this section of the chapter is first definitely directed are:

1. To emphasise the fact that no social "*organisation*" (as in the case of judges) has been yet evolved by civilisation for the production of arbitrators of the particular but highly important type under consideration.
2. To suggest that steps should be taken (i) to give prominence to the whole question, (ii) to

undertake a scientific investigation into its significance and importance, (iii) thereafter to suggest, if thought necessary, practical methods for initiating a solution of the problem.

Part II. Some Observations and Suggestions.

In accordance with Bacon's dictum that "prudens interrogatio dimidium veri," only a statement of the problem has so far been attempted. Some tentative observations and suggestions are now offered.

Though each is born in the governing group or the governed, it is not infrequent for a man to have experience in both. But the early years are commonly spent definitely in the environment of one class or the other, not of both ; and it is these years that give the character its sympathies and complexion.

Should the work of an arbitrator evolve into a definite profession, far-sighted parents in all classes, and schoolmasters and schoolmistresses in all types of schools, will increasingly begin to aid in the selection of children or youths whose native temperament seems to fit them for this function or career by promise of depth of heart and breadth of interests, a passion for service, alike spiritual and temporal, firmness and fearlessness of soul, genius for accuracy and thoroughness, and love of justice tempered by mercy—in a word, magnanimity of character.

Such a career will inevitably come to be highly esteemed, and raise those that follow it nobly to great honour, altitude and influence.

The appropriate education and training of the young will present four main problems, according as they are sprung from the governed or from the governing, and according as they are male or female.

Of course it will also be possible to enter upon such a profession at all ages of a citizen's life.

The ideal arbitrator should be the microcosm of the social macrocosm, with something substantial of the fundamental experience both of governing and governed.

The education and training of an arbitrator being pre-eminently preparation for a mission so pregnant with spiritual and temporal consequences is thus perhaps the most difficult and complex of all, being alike the most general and the most special.

More must be boldly ventured thereon in body and in soul than for any other type of education and training for livelihood and life; for the more lofty the mission, the more hazardous the venture. Without entering the water no man can learn to swim, and familiarity with rough water must precede the acquirement of power of surviving the breakers of a tempest.

In important industrial and other disputes it is vital to the stability of a nation that able men and women shall be found with sympathies equal for employer and employed, yet also experienced substantially in the nature of the concrete point under consideration.

Nations will progress or degenerate largely as they succeed or fail in obtaining the service of truly great women and men experienced in the broadly-representative human occupations, sympathetically just to both parties, and with courage trained to shrink not from obloquy, from ruin or from death itself in the performance of duty and the service of man.

But well-designed experiment only can work out the appropriate types of educational curricula, of home co-operation, and of earlier occupational practice for the career of arbitrator.

A sociological inquiry, directed to the purposes of arbitration, of the basal roots of the main groups of occupations is thus necessary. A sketch of this we have given in Chap. IV.

The university settlements in the poorer parts of large towns have gone some way to enable young men

of the governing classes to understand the conditions of life of the governed.

It may be that the fuller understanding necessary for successful arbitration among the governing groups is obtainable only by the earning of a daily workman's wage and actual living upon it for a substantial number of years among some group or groups of employees.*

The fear on the part of parents of misalliances, the relative monotony of the work, and the stern, physical labour involved doubtless have brought and will continue to bring to a premature end many well-meant enterprises of this kind among youths of the governing classes.

But the increasing social need of competent arbitrators will in time overcome these difficulties.

Moreover, with regard to inter-marriages, it is possible that, in exceptional cases, marriages of suitable personalties may prove both in themselves and in their offspring to be one of the most fruitful paths to mutual class understanding.

A history of the university settlements movement in Britain, regarded from the standpoint of the supply of arbitrators, would be valuable. In original impulse the movement may be fruitfully compared with the rise of the mediæval preaching friars in their early and successful years. Here, too, history would doubtless deliver lessons useful for the object of our inquiry. Along with the rise of university settlements in the east ends of towns to bring the university to the workman, working men's colleges have reciprocally sprung up to take the workmen to the university.

A great sphere of influence is now opening to that nobly conceived working class educational movement

* "I stood next the motorman one day during the arbitration when a child rushed in the path of his car. Only a lightning hand checked it in time, kept its forty tons from mashing the boy to pulp. 'If they'd arbitrate this strike on my platform,' the motorman said, 'they'd learn a few things. The locomotive engineer hasn't any bigger strain.'"—("New Republic," U.S.: F. Hackett, Aug. 14, 1915.)

initiated by Albert Mansbridge as the Workers' Educational Association.

But so far as is known none of these important developments have had in view the production of arbitrators, either from among the governing or the governed.

But once the idea and the corresponding ideal seize the imagination of a few of the open-minded among either group, fruitful developments may be confidently expected. As regards the workman (or workwoman), there should be opened to him (or her) a great career as arbitrator, wherein the rise in influence is within his group as well as a career outside it.

Corresponding opportunities should obtain also for the governing classes.

The corresponding movements for women—perhaps, taken all in all, still more socially important—namely, university settlements in towns, and working women's colleges at universities still await their due development, international and intranational.

Again, close study of the lives of successful arbitrators would assuredly throw much light on the problem. Particular attention would naturally be paid to: (1) the ancestors and their occupations; (2) the early education and training; (3) the variety of occupational and other experience; (4) the nature of the character and temperament; and all these not only in themselves but in relation also to the types of dispute in which the arbitrator was more successful, and the types (if any) in which his services were less successful.

Not only should the biographies of arbitrators in modern times be consulted, but also those of mediæval and ancient times so far as known, alike in East and West. Thus, the uniquely arbitral international position of St. Bernard* of Clairvaux in the Europe of the twelfth

* St. Bernard sprang from a noble Burgundian family, and imbibed in youth its governing qualities and traditions. He submitted himself to the discipline of the Cistercian Order of Benedictine monks. At twenty-three, in 1115 A.D., he founded the new House of Clairvaux, and in his own person learned the meaning of poverty, daily stern field toil, hard unnourishing food,

century, and the equally striking national position of Sontoku Ninomiya,* in Japan, in the first half of the nineteenth century (1787–1856) abound with rich lessons.

Nor be it forgotten by Protestant writers that one of the most useful functions of the Papacy was arbitration in feudal, royal, and other widespread disputes, both of a dynastic and a commercial nature. From more ancient and Hebraic times the noble names of Deborah and Solomon will readily recur to the memory.

It might be useful at the outset to divide the biographies into groups according as the arbitrators belonged to the predominantly spiritual or the predominantly temporal professions and occupations of mankind; and these two great groups again into subordinate groups.

It may be predicted, with some confidence, that however ably "organisations" for the supply of "arbitrators"

and lack of warmth and shelter. Over ten years he spent in deep contemplation, until finally he felt prepared for a life of political action as a Church statesman. After immense and fruitful public labours he died at sixty-two, exhausted prematurely by the unremitting persistence of his work and excessive bodily mortifications. With all his magnificent powers and supreme nobility of soul to the end lay hidden from him the secrets of the healthy rhythm of life in body and soul—relaxation periodically alternating with activity (alike psychic and corporal): that golden sense of proportion that should be the lifelong twin of the high missionary soul, ever reminding it that there is a time to be indifferent and unconcerned, and that to bear fools gladly and look upon evil calmly is the saving humour of life to intense natures which too commonly mistake their own will for the divine, fail to balance the instinct of a mission to men by modest conviction of a frequent ignorance of their own deepest needs, an impatience that would gather in a year the growth of a generation, and exhaust the limited vessel of life by excessive use of consciousness and conscientiousness where they might with great wisdom and profit leave the work to the unerring if humble mechanism and animalism of the body and their corresponding sub-conscious souls in the lower branches of that wonderful tree of life up which the missionary soul has climbed to such dizzy and perilous heights. Illuminating to all highly commissioned natures is the life of Buddha, with the Bo Tree story and the vegetal calm of Nirvana. Life's daily curve should reflect life's whole span.

* One of Sontoku's great achievements was the "Hōto Kusha," a social organisation of "a co-operative credit society started about twenty years before similar societies were formed by Schulze-Delitzsch and Raiffeissen in Germany." (See Yoshimoto, "A Peasant Saga of Japan," Longmans, Green & Co., 1912). See also Victor Branford, "The Mobilisation of National Credit" (*Sociological Review*, October, 1914).

may be developed, some of the greatest arbitrators * will ever continue to come from the outside; for here, in particular, genius for sympathy and justice is the dominant note, even beyond concrete experience; and genius, like the wind, bloweth where it listeth.

Fruitful, too, would doubtless be a study of the variety of existing "organisations" for the supply of "judges," embracing not only the purely professional parts of their training but also the schools and colleges at which they are customarily educated, the types of social family normally producing them, and so forth. And this, not only in the larger but also in smaller countries; indeed, the inquiry might perhaps most promisingly begin with the smaller states, and particular attention be paid to free or self-governing cities, and similar small regional units of government.

The results of such investigations and the applications prudently based upon them would probably influence current ideas and ideals of what is known as a "general education," leading, as it would, into inquiry into the ultimate types of occupation and activity among mankind, and so also into the ultimate sources of culture.

This, again, would influence the further evolution of existing organisations for the supply of judges and other important officials in the administration of justice or the making of laws, and stimulate the study of problems of social administration in the world's universities.

But only by slow, tenacious and patient steps will such investigations lead to fruitful social action; above all must the study be conducted with the highest impartiality, for the spirit of the beginning will be found again in the end.

In the development of such practical schemes the motto must be "*festina lente*"; for here the fruit of the experiment shows itself only after a generation. In such schemes experience suggests that the initiators

* As the late Bishop of Durham (Westcott) and the late Sir David Dale in North of England strikes and disputes.

must be prepared to find on trial that difficulties appearing trivial at the outset prove formidable at the end, and conversely.

When the arbitrator is educated and trained, a question apparently bristling with difficulties is that of his (or her) financial position and official status to ensure, so far as that indeed is independent of his own strength of character, that he shall arbitrate *without fear or favour* not merely of the two contending parties *but of the body appointing him.* Or the question of the composition of this body, as between the governing and governed classes. Or that of the composition, *as between the governed classes and the governing*, of the body administering the school and other parts of a practical scheme for his education and training. Or that of the main branches of industry for which it will be most promising to attempt the supply of arbitrators. Or the proportion of arbitrators to emanate from the governing and governed so far as these are clearly distinct. All such questions, in the end, however carefully thought out, will doubtless be found amenable only to the maxim *solvitur ambulando.* But the more thorough the preliminary inquiry in mutual counsel, the greater and more rapid the measure of success of the subsequent council, and the less its failures.

Further, it may be usefully observed that the chief function of such arbitrators will not lie in an appeal to them at a crisis, but in their preventive functions in the capacity of trusted consultants of both parties or groups with the view of obviating disputes*; just as in

* An increasing number of private disputes are being settled by private arbitration in preference to the publicity of the Law Court. "Courts of Honour" are also being developed in certain United States prisons, consisting of prisoners themselves sitting in judgment on one of their number offending some prison rule; this is in full harmony with principles (*p*) and (*q*), above. Again, "The New Republic" (U.S.), points out that the "Conseils de Prud'hommes" in France are composed of equal numbers of employers and employees; there is no official chairman as in Germany and England; but if there is ultimate disagreement the State official intervenes. To place both parties on an equality before these industrial courts

the engineering world the difficulty of drawing up specifications that shall embody all that is required for the proper carrying out of a large undertaking has brought about the evolution of independent consulting engineers for dealing with difficulties and charges not expressly covered in any other way by the terms of a contract. In a word, the treatment must be preventive rather than remedial. The analogy is not, of course, complete, but serves to illustrate the point in question.

Political Science and Art have their Exemplars in the Home.

As regards women arbitrators, a great field will assuredly open out gradually for their services; the need of these is particularly pressing in those groups of occupations where the youth of the nation is specially concerned; moreover, the practical problems involved may turn out less formidable than with the men, owing to the wonderfully generalised occupational experience open to women in the home.

Of all the natural occupations of mankind the bearing and mothering of a family demands the most wide and balanced natural powers.

In the manifold activities of our mothers the primal natural crafts are united in a high degree, unmatched in this respect, perhaps, by any other single profession, occupation, or craft.

A mistress of all things is every noble mother whose value is beyond estimation, since through her noble offspring she increases the value of mankind and so gives point to the saying: *Filius magnus . . . major mater.*

Further, the home creates in embryo all the different forms of government known to man; in its matriarchy

lawyers in Germany never appear, in France rarely. Few lawyers, from lack of scientific and industrial training and experience, understand the complex questions in dispute. But official arbitrators are sadly needed to extend agreement throughout a trade to unorganised workers and small employers.

is the germ and genesis of a benign absolutism: in its allied matriarchy and patriarchy a constitutional and dual monarchy; and in the task of training brothers and sisters to ultimate equality with the parents is a republic in miniature of aristo-democracy and demo-aristocracy. Thereto, in households of a larger type, must be added the hierarchy of combined rule and service embracing members of the household though not strictly of the family in its limited hereditary sense.

Here are all the problems of government in miniature, wherein days of state are domestic hours, its months are days, its years are months, its generations are years, and its millenia are generations. Here, too, are the human roots of peace and war; peace of the home and peace of the nations are life-long twins. Home, industry, and politics are links of the golden chain binding one generation to the next.

We complete our brief survey of a large matter by pleading for sober and patient reflection on these final points.

Is the absolutism of the mother over the babe in the home the only instance of such a type of government that is really benign? What are its characteristic features? Self-sacrificing love in the ruler, helplessness in the subject, a fixed term to the duration of rule. Were these also the characteristic features of the Roman "dictatorship," that strange anomaly in the constitutional spirit of those great rulers; or (as many sagacious judges have thought) was its existence one of the root temptations that ultimately led to the downfall of the republic?

If so, did the radical distinction that falsifies the analogy lie here, that the changeable custom of man fixed the limit to the exercise of dictatorship while nature herself lays down the limit to the mother's rule?

Or shall we say that dictatorship is then only safe and benign when exercised by her alone who has been the wise mother of babes?

One further point. Of these governmental problems in the domestic commonweal of the family, is not the most testing of all the task of training the offspring to ultimate equality with the parents and indeed to final replacement? Do we commonly realise that upon our solution of this depends that of the problem that outsprings from it, the mission of the leading citizens and statesmen so to train the generation that will replace themselves to equal co-operation in their own lifetime? To the natural man power is hard and bitter to yield as life itself. Yet the man spiritual can find in the magnanimity of calm resignation of power, even in the prime of old age, the sweetest fruit of life's experiment and experience.

Is such magnanimity, at once sober and great, possible also for all things that die? From empires to citizens! Is it too great a conception for an aging state to realise its distant death, and merge itself in a younger and so to carry on and enlarge, ennoble, and enrich the inheritance and heritage it has itself received and developed? Or is it maintained that the idea of death is inapplicable to such vast combinations of life? This at least we venture to say, that vain is the hope of those that would wisely govern man in city, nation or state that have not seen all their fundamental problems confronting them in the governmental model of the simple human family, and profited alike by their successes and their failures.

CHAPTER IX

A SURVEY OF THE EVOLUTION OF UNIVERSITIES THROUGHOUT THE WORLD, ATTEMPTED FROM THE STANDPOINT OF WORLD-HISTORY, WITH OBSERVATIONS AND REFLECTIONS ON THE RELATIONS OF ANCIENT AND MODERN LEARNING

FIRMLY seated in the saddle of the present, ever living and ever moving, a true school of learning now peers backward along the dim and vasty corridors of time, incarnates with the serenity of a statesman the insight of the ages, brings the magic of the past into the present and reflects the dry light of the present into its interpretation of the past; now it looks forward into the open fields of the future, thrills with the prophetic foresight of the sages, breathes the mystery of the future into the present and projects the sobriety of the present into the fashioning of its vision of the future.

The considerations already put forward* are, it is urged, weighty grounds in favour of the cautious development of a world university as the fitting academic organ for the revelation and expression, on the scientific side, of the rapidly growing consciousness and conscience of the world soul.

Equally weighty grounds will be found in a survey of the characteristic features of the evolution of universities throughout the world. Of so vast a subject here we offer but a sketch, relatively brief and obviously imperfect, but, it is hoped, suggestive.

Evolved from existing international needs and

* See Chap. VII.

increasingly responsive to these, such a world university could not in any way replace municipal, national, state, imperial, racial, or religious universities, or other similar schools.

Rather would its existence contribute to the expansion, in even greater measure, of that spirit of relatively wide catholicity in students and in studies, that has so often inspired universities at their zenith in the age-long story of education.

Of this story it is open to humanity to become increasingly conscious, until, in days distant but assured, as a world temple shall symbolise and express the self-conscious soul of humanity's religion, and a world theatre shall stage its revelation of the highest poetic beauty, so we doubt not shall a world university focus its undying passion for truth.

Too long has the soul of the West been lonely; too long has been lonely the soul of the East; their deliberate marriage is at hand.

The welfare of the world-home will depend upon the spirit that brings about that union, upon the sympathetic understanding that follows it, upon the common world will to create the noblest future for the children that are to be.

Yet, though too commonly unconscious, East and West, that each is indispensable to the other, the story of the evolution of universities reveals the existence of the same great ocean of knowledge uniting all seekers after truth.

Thus, even if it be but slowly, the mastery of deeps once charted becomes ultimately the common stock of human culture, a veritable *universitas* of humanity, created by the co-operant labours of all men throughout all time, that majestic Palace of Truth, in comparison with which the contribution of any single person, institution, nation, or age, however vast in itself, appears but as a single oak in the multi-millenial forest.

Including schools of university rank, there are nearly

a thousand universities of good standing existing at the present time; a large number have also passed away.

Obvious practical limitations, therefore, constrain our desire to cite all noble names in the history of great universities or other corresponding schools of culture. We can select comparatively but few, perforce omitting many names equally worthy of our homage.

We arrange them roughly in connected groups, and, so far as consistent with this and other necessary conditions, in chronological order, at the outset looking far backwards to the mother schools of all in Egypt, Syria, Persia and Mesopotamia, those crucibles and regenerators of humanity (in all its manifold races), primeval marts, and cultural foci of East and West.

There is another important limitation of our citation, in that our knowledge of university development in the East is unfortunately defective in many essential points.

Perhaps not till a World University shall have arisen will it be possible for students of the history of universities, however zealous, to obtain in fair and just perspective and with reasonable comprehensiveness a vision of the evolution of world-culture, as revealed by institutions of university rank and function.

* * *

Ancient Universities: (a) Semitic and European.

(*Embracing also the first and second periods of Euro-Asiatic contact* (550 B.C.–50 A.D.; 50 A.D.–650 A.D. *app.*), *dealt with in this work.*)

Memphis (Memf): illustrious for the profound and comprehensive philosophical and theological research of its university temples, inspiring art and industry and by these again inspired. Further, in the temple schools of Egypt flourished a wonderfully organised system of training alike in drawing, painting and sculpture, certain

of whose qualities appear never to have been subsequently excelled by the labours of any race.

* * *

The vital relation of philosophy with art and of this again with industry have become obscured in modern times. There is a major philosophy in the shape of a great synthesis of belief that periodically precedes and initiates the rebirth of art and industry ; there is a minor philosophy of critical analysis, equally indispensable to the welfare of humanity, that succeeds the rebirth and ploughs the soil of the soul in preparation for the next sowing of the thought seed.

From the Egyptian school of mathematics derive the wonderful Greek developments which, uniting later with Hindu science in the transforming and transmitting genius of the Semites, fertilised modern and mighty European conceptions.

The modern science of chemistry, both organic and inorganic, finds its earliest historical roots in Egyptian learning ; *Scientia chemiæ* meant originally the science of Egypt, *Chemi* being the ancient name of that land.*

Babylon (" The gate of the God ") : first mentioned 3800 B.C., famous for its schools of medicine, mathematics and astronomy ; in medicine discovering hygienic truths that have only recently come again to life ; in mathematics inventing the principle of place with that magical number, the Zero, and in astronomy making observations of astonishing accuracy in the observatory-towers ; Babylon—with its highly organised commercial and official administration, based upon wide learning, with munificent tablet libraries and imperial and priestly schools.

Nineveh : ancient capital of the Assyrian Empire, conqueror of the Babylonian about 1250 B.C., and modelled in many respects upon the Babylonian organisation of learning and rule ; with its most flourishing period from about 800–600 B.C.

* See Schorlemmer, "The Rise and Development of Organic Chemistry," edited by Arthur Smithells, p. 5 (1894, Macmillan).

Damascus: with the tomb of the great Saladin, perhaps the oldest existing city in the world, the first city mentioned in the Hebrew Bible ; known briefly as Es-Sham to the Semites ; noted for schools of law, medicine, astronomy, and geomancy.

Jerusalem, Athens, Syracuse, Rome and Alexandria : schools so famous in the Near East and in Europe that the names alone are enough to suggest their cultural glories.

Yet, as perhaps less widely known, we may specifically note the engineering, mechanical, and mathematical achievements of Archimedes of Syracuse (noting by the way the strategic fertility for scientific discovery of the union of practical and theoretical experience)—Archimedes, whose science was happily handed on to a considerable extent by later saracenic * philosophers ; and with Syracuse in its zenith as a great literary centre there appears to have been an intimate connection with the poetic life of Sappho, queen of women world poets.

Further, from the college at *Alexandria,* founded by Alexander the Great, pupil of Aristotle (here again note the epoch-making influence of the mature great teacher upon the equally wonderful soul of the adolescent), developed the world renowned Museum (*μουσεῖον*), a university unsurpassed in recorded times for its contributions to culture and its wide scope for the practice of world citizenship.

Modern philosophy is slowly awakening to the significance of the spirit that dwelt in this "Temple of the Muses," whose nine-fold unity has been reinterpreted by an epoch-making thinker (Geddes). For a thousand years (323 B.C.–640 A.D., date of its capture by Caliph Omar) the Alexandrian School maintained its existence, and for nearly half of this unparalleled institutional longevity was the centre of learning for Hither East and Europe, attaining a degree of encyclopædic activity even more cosmic in the impartiality of its outlook than the corresponding labours

* An explanation of the avoidance of capitals is offered in the Preface.

of our own times. To this excellence strongly contributed its central position in world commerce, industry and art; and the rich intermingling of races meeting in Alexandria, embracing peoples as far East as the Indians, if it created ultimately a system of thought eclectic, or at most syncretistic, rather than a substantial synthesis, did at least widen sympathies, stimulate fertility (both corporal and psychic), and disseminate the highest existing culture throughout the ancient world. This it achieved in spite of a strong bias towards superstitious practices (met with in all ages of science, not excepting even our own modern learning, for the whole apparatus of atoms, molecules, elements, periodically passes into fetishes of absolute belief with its votaries) that from time to time weakened its resources against hostile invasion so that it fell a comparatively easy prey under the assaults of the Arabic arms. Their conquest of the city in its deleterious consequences has been grossly exaggerated by Western historians; additional weight is given to this view when we remember the wonderful civilisation and culture subsequently replacing the Alexandrian decadence under the guidance of saracenic leaders.

Connected with the Alexandrian School of culture either as teacher or as learner are the famous names of the elegiac Callimachus and bucolic Theocritus (reflecting itself, this pastoral spirit, in the then famed Alexandrian school of sculptured reliefs), the encyclopædists Aristarchus of Samothrace, and Eratosthenes of Cyrene (276–196 B.C.), the latter a pupil of Callimachus (the continuity of the transmission of the torch of learning rarely if ever is broken; where darker ages seem at first to intervene, more sympathetic, deep, and patient inquiry almost invariably reveals the existence still burning of the torch,* as of old with the vestal fire)

* As quite recently in the case of the Evolution of Chinese Art. (See "Chinese Pottery and Porcelain," by R. L. Hobson, B.A.; Cassell & Co., 1915).

—Eratosthenes eminent not only as moral philosopher, historian and grammarian, but also as geographer, astronomer, and mathematician; the philosophers and theologians Philo Judæus, Clemens Alexandrinus, Origen, Arius, Athanasius, Plotinus and Porphyry; the mathematicians Apollonius of Perga, Euclid and Archimedes (the last resided for some time at Alexandria); the geographers Hipparchus and Ptolemy (whose mapping of the then known world, passing down and from time to time increased by Saracens, Jews, Hindus, Persians, and lastly Europeans, formed the substantial basis upon which the great navigators of Italy, Portugal, and Spain, discovered the New World and extended the Old, the very mistake in measurement made by the Ptolemaic school leading, by strangely fertile irony, to the encouragement of Columbus in his belief as to the magnitude of his projected voyage, deeming it substantially shorter than actually it was); the physicians Erasistratus and Galen of Pergamos (131–200 A.D.), the latter migrating subsequently to Rome as the fame of Alexandria paled.

The Arabic conquerors became themselves subsequently munificent patrons of learning; medicine in particular flourished in their hands in harmony with their noble saying: "The pen of the doctor is of equal value with the blood of the martyr"; Constantine the African (about 1050 A.D.) first translated Galen into Latin, thus reintroducing scientific medicine into Europe, largely through the school at Montpellier.

In the thirteenth century the general Arabic and Judaic scientific influence reached its zenith upon Europe with the stimulus it gave to the deep heart and mighty intellect of the Christian friar of Oxford, Roger Bacon.

The vast river of this great living tradition of medical science and art, steadily streaming down from hellenic Hippocrates (about 470 B.C.), and Aristotle (384–322 B.C.), may be briefly glimpsed by reference to the names of roman Celsus (about 50 A.D.), hellenic

Galen (131 A.D.–about 200 A.D.), persian Rhazes (about 925 A.D.) of Baghdad, Mesua (the younger) of Damascus, whose eleventh-century *materia medica* was made by the London College of Physicians in the reign of James I. the basis of their Pharmacopœia (a scientific art invented by arabian physicians), semitic Avicenna (Ebn Sina, born 980 A.D.), and Averrhoes (Ebn Roshd, 1149–about 1200 A.D.), and jewish Maimonides (Rabbi Moses ben Maimon, 1135–1204 A.D., born at Cordova, physician to Saladin, died in Cairo; whose influence both in medicine and philosophy was great in european universities as early as the thirteenth century; in modern times the close sympathy between moral philosophy and medicine decreases, with great profit to scientific specialism and great loss to unity of life and thought); swiss Paracelsus (about 1491–1541 A.D.), italian Vesalius (1543), the english Harvey (1628), the italian Malpighi (1628–1694), and later Morgagni, the dutch Sylvius, Leeuwenhoek (1632–1654–1723), and Boerhaave of Leyden (1668–1738), english Jenner (1749–1798–1823), french Bichât (1771–1802), Broussais (1772–1838), and Pasteur (1822–1895), english Darwin (1809–1859–1882) and Lister (1827–1913), the germans Virchow (1821–1902) and Koch (1843–1910).

Note too the intimate mutual influence of physics and medicine as illustrated by the alexandrian school, the italian (Galileo and Cæsalpinus) and the english (Bacon, Harvey, Locke, Sydenham, and Newton).

Deliberate stress has been laid repeatedly on medical culture, science and art combined, both by reason of a modern return, alike in corporate and individual spheres, to preventive and prophylactic methods, measures and spirit, so well understood in ancient times as exceeding in importance even the noble curative aspect of medicine; and also by reason of the central position of the science of life and the science of death (biology, and its much neglected sister science thanatology, over emphasised though the latter was in Egyptian culture,

with its appalling visions of hell and with its pyramids centred in the living town, vast tombs of the dead) in the evolution of culture with their irreplacable function of linking up man as a mechanical instrument with man as a humanism (man *quâ* human), and, in each, uniting man with the corresponding kingdoms of external nature. Hence it comes about that philosophy and medicine commonly rise and sink together in the story of learning and its application to the life of man.

It is not an accident but inherent in the very nature of man's relation to the macrocosmic world without, and knowledge of the microcosmic world within himself that we can so frequently enumerate great names, whose bearers united profound knowledge of medicine and philosophy, as Aristotle, Avicenna, Averrhoes, Maimonides, or, coming down to modern times, Locke, Darwin, Lotze, Pasteur, and so forth.

> Well would it probably repay the medical scientist and the pharmacologist, endowed with some taste for antiquarian research, to scrutinise critically yet humbly the hygienic customs, medicaments, and religious rites of ancient peoples. The Egyptian reverence for the cat is doubtless based upon its enmity to the rat, as the destroyer not alone of the granaries of the Nile basin, but of man himself, through carrying the bacilli of the bubonic plague. Even in the latest discoveries of physiology are reawakening ancient ideas as to the necessity for a comprehensive and effective hygiene, of equal treatment of body and soul. Of this view was "the laying on of hands" at once soulful and corporeal—the latter as with modern massage of involuntary muscles and voluntary.

The hellenic significance of Pan and Psyche.

To the observing eye, sympathetic alike and equally to each of the two worlds of man, corporeal and psychic —as was the ancient physician-priest—the most modern developments of medicine and hygiene exhibit a growing appreciation of the significance, sense, and scope of the functional rôles of the hormones, those essential

elements of certain secretions such as the thyroid and sexual glands that quicken the metabolic processes, and the corresponding chalones,* those elements of the same important secretions that slow down the metabolic processes of the body. The field of research thus auspiciously opened awaits the rich cultivation of the future physiologist.

But no less rich a field correspondingly awaits the psychologist. For to each of these physiological facts with the conceptions that organise them into a new branch of biological science must correspond subjective psychological facts with the correlative conceptions that will be needed to perform the like service for these.

Truly the ever present and insidious danger of confusing the fields of the objective with those of the subjective, the world of science without with the world of science within, will be encountered; but there can be no great exploration and discovery without this gigantic and growing obstacle. Here are indispensable alike sanity and coolness, impartiality and tenacity, ingenuity and humility: in a word the disciplined passion of research.

Doubtless this complementary group of problems will find gradual enunciation and ultimate solution by a scrutiny, patient and penetrating, into the nature and conditions of that streaming circulation that ever obtains in the world of mind, with its unnumbered psyches, whether of the larger organs as heart and lungs, liver and kidneys, or of the minute cells of the body, down to the psyches of nervous substances imperceptible to the microscope for the simple yet profound reason that they are in too embryonic a state. This circulation in the mind between the full and vast consciousness of its upper atmosphere and the still vaster subconsciousness of the underlying ocean has received too little study. Hereby, sensations and feelings, ideas and images, desires and emotions, embryonically incarnate in the cells and organs as indwelling psyches, develop in intensity and quality, and emerge at length into the full consciousness only thereafter to become resubmerged into the ocean deeps.

* So named by their discoverer, Schaefer, of Edinburgh University.

At all stages of life this circulating stream, at once psychic and corporeal, as of the inhabitants of a vast kingdom, where an individual may rise, through aeons, from beggar to king, needs attention from plant through animal to man, in all his main periods from embryo and infancy to maturity and old age. A close analogy might well be made between such circulation in the individual soul and the soul of a whole people.

Do these hormones and chalones principally contribute to that balanced progress and progressive balance of a life that is sane and sound whether it is the life of the whole organism or of its separate parts in its cycle; from the inscrutable germ evolving upwards and outwards along the ancestral tree of all life to the objectively revealed form of maturity; and simultaneously undergoing a retraction, a diminution, an ingrowth, in a word, *involuting* downwards and inwards along the life tree back to the original inscrutable psyche and its original imperceptible germinal body; till the complete cycle from birth to death is traversed?

Perchance future curative methods in certain wide groups of diseases may thus become largely and fruitfully based upon the following hypothesis until hygiene, as science and art, undergoes a new transformation to meet the new diseases that every fresh period of discovery partly creates and partly reveals, for man is not a mere creature that is finished, but a creator of his creature-hood imperishably active. The hypothesis is this. That the dual unity of life, sanity of mind, and health of body, is a moving balance and balanced movement of evolution up the ancestral tree, and involution down it, each process obtaining not in the whole body alone but throughout its texture.

Vis medicatrix naturæ. (*Hippocrates*)

Here, for instance, may be need for recuperation by the action of the chalones, slowing down the circulation and involuting the higher functions of life into rest and sleep, hibernation and peace, yet also the lower and simpler functions into the relatively active activities of a preceding stage. As where the sights and sounds, the scents and touches, the temperatures and tastes and involuntary muscular

experience of the patient in a rural retreat regenerate alike soul (psyche or mind) and body, in a manner at once peaceful and vegetative, yet also interesting and active, amidst the song of birds, the scent of flowers, the busy yet drowsy hum of insects, the cooling warmth of the summer wind, the majestic peace and solemnity of the great trees, the enchanting taste of bread and fruit, of honey and cider, of water and wine. Or again in winter with its contrasted peace and activities. *Vis medicatrix naturæ.*

Or again there may be equal call and need for recuperation and healing by the hormones quickening the circulation of soul and body in evolution up the ancestral tree to a higher stage, in those cases where the patient's growth has become for a time arrested, where all or some of the organs are atrophied, where the organism with its indwelling psyche (or shortly the pan-psyche) is at too low a stage of development, remaining an animal perchance, or even a plant, where the human altitude should normally have been reached. In this case there is need, it would seem, of the regenerating intercourse and activities of the rich human hive of the urban life of mankind, where amidst the massive variety of natures and temperaments, amidst the arts and crafts of the town will haply be found on wise seeking the environment that will evoke the sleeping human psyche of the patient into new development.

Or again, a periodic union of these environments, rural and urban, may be the sole curative agency: this is indeed the normal case whether for restoring sanity and health or for maintaining these same priceless possessions.

Nor let there be forgotten that rule of ancient schools and monasteries—the discipline of simple daily duty in some chosen occupation started at the fitting moment of recovery. No call is here for the great and important task to which many are elusively attracted but few are fit and chosen. But that which is offered is open to the capacity of each and every one, child, woman or man, the daily routine of the simple hodman too often sadly asleep in us all; yet on whose common back as on a rock impregnable must be reared the united health and sanity

of our lives. For hereby alone with its daily union of simple interests and dull monotonies, its aches that stay and plague one spot alone, or, Pucklike, run and prick this mortal house of flesh from roof to cellar—hereby alone creeps unperceived and stealthily into our lives from head to foot, from foot to head, from body to soul, from soul to body, that first unblest then later cherished spirit of discipline whose masterly hand reaches from the great organs and their psyches down through the minutest cells to the invisible and inscrutable origin and germ of our lives; a spirit that persuades and exhorts, guides and compels, rewards and punishes, with the unerring judgment of a god, each and every part and atom; till under good providence this rebellious soul and body become a veritable city of God, with disciplined citizens, ancestral and descendantal, humbly resigned to the finger of destiny, and yet therewithal divinely recreating itself within and its world without periodically anew. Such is man, *deus mortalis*.

May we not thus in calm confidence attain to the stature of the old-world faith in sister soul and discipline of brother body so that death itself is accepted not as a terror with the surprised silence of resignation, but as an enchanted gift with the paean of praise and joy, the perfect state of rest and peace in our involution to the miraculous dust of death? Wherein too some mysterious regeneration abides towards endless reincarnation and cycles of future world life, unique yet universal.

Spaceless and timeless, the germinal origin of the individual in soul and body of necessity is invisible to the sight of the eyes itself has created, untouchable by the hands itself has formed, inaudible to the ears itself has fashioned, imperceptible to any sense or organ of this mortal life, themselves but the noble instruments of its own magical activity. Thus beyond space and beyond time this root of our inner being abides scatheless the tooth of Time and the grasp of Space. Life knoweth not Life; nor Death knoweth Death; but Life and Death have known and kissed each other.

* * *

The Eternal Quest of Life's Secret.

An ancient Egyptian and Russian folk story tells of a hero who could not slay his mortal enemy until he had discovered where lay hidden the secret germ of his life.

So through many weary nights and days to an isle far distant he must journey where grew the tree of life; and beside it grew its twin, the tree of knowledge. Beneath the life tree he dug deep into the roots, and there lay a chest which he opened with the magical key of science found hanging on the tree of knowledge. Within the chest lay another, and within that other a third; within the third a fourth; and continually with patient quest the magic key unlocked chest within chest, each more wonderfully fashioned as the series lengthened. And again lay chest within chest while the labour waxed with unceasing increase, until at length the hero's hair became hoary and his limbs grew feeble with age.

Still he toiled on.

At the point of death his fast closing eyes perceived at the bottom of the last chest of the endless series a small object, inert and shell-hued, which his too feeble fingers could grasp but strove to crush in vain, for therein lay hidden the life secret of his enemy. Suddenly there struggled forth a butterfly so bright and beautiful that the hero could but gaze at it with rapt amaze as, escaping his grasp, it fluttered gently skywards.

On the point of its vanishing from his mortal sight his own yearning spirit fled following fast, reached the high soaring one, and the two melted mysteriously into one; and in death *the hero knew at last that his mortal enemy was himself, and each imperishable in the life universal.*

* * *

A Synthesis of Ancient Demeter and Modern Science.

From the bounteous womb of his great Motherland man receives the gift of life: that gift to Her each must render back. The terrors of Death must each one face.

Death in life and life in death.

But such things veil from us their inner meaning.

All great things and good hath GOD seen fit in His infinite wisdom to offer to our mortal eyes in forms that repel and chill our feeble hearts; whereas the garb of evil draws us as with enchantment. Our finiteness comprehends not the peerless gift GOD offers; but in moments of exaltation of soul and ecstasy of body the immortal spirit of man pierces through the dread form and sees with the inner eye the majestic figure of the All-Beautiful. Behind the veil of Death appears a smile of ineffable sweetness, so compelling that the spirit would fain abide therewith for ever.

At that supreme moment when Death meets Life, Man rises to the pinnacle of heroism and achieves his immortality. In Death's embrace Man consecrates his Life.

His grave is the bosom of universal Mother-Earth, and his vault is the starry firmament of heaven. In the spirit of each lives the spirit of Earth. Dust we are, and to dust we all return.

But every smallest particle of that priceless dust enfolds within itself a very galaxy of stars; and this GOD-created body thrills everlastingly in ways that we comprehend not, but yet can apprehend, with the magic of matter, the miracle of life, and that mystery of mysteries, the individuality of man.

*The Resurrection is not a tale that is told: not a fable whose truth is fled: but a great vision of the spirit that dwells imperishable and divine in the secret heart of "The Universal Man," and is even now reincarnating itself in the belief of the Western world.**

* * *

Tarsus: celebrated ere Athens was known, that proud and ancient semitic city on the banks of the rapid Cydnus, hellenised in later centuries and far famed for its university, where jewish Saul, later christian St. Paul, was born and received his education; sending forth teachers as far west as Rome itself, though in St. Paul's time its reputation had apparently declined considerably. The effect of semitic philosophy and religion

* Capt. A. L. Owen of Strand School gave valuable help in this section.

upon græco-roman culture has been insufficiently evaluated by Europe, though in saying this we do not forget the recognised influence of the Mosaic law upon Christianity, and of this again upon the world ; it is not as proof but merely as arresting and weighty illustration that here we cite the name of Zeno, founder of the stoic philosophy, as a *semite* born in *Cyprus*, with his far-reaching and still spreading and deepening influence upon hellenic learning and law at the outset ; an influence enormously strengthened in the transmission to Rome, inspiring, in alliance with rich roman political and commercial contact with East and West, the birth and development of the great roman principles of *jus naturæ* and *jus gentium*, themselves (after receiving the masterly impress of Ulpian (170–228 A.D.) and Papinian (died 212 A.D.), two of the great world jurists (both, be it noted, of syrian origin) and further consolidated by Justinian (son of a slavonic peasant, 482–565 A.D.)) revived and developed in later successive french (Jacques de Cujas, 1520–1590), spanish (Francisco Suarez of Granada, 1548–1617), italian (Gentilis, 1583), dutch (Grotius, "jurisconsult of the human race" as Vico called him, 1625), german (Puffendorf, 1672, and Leibnitz, 1693), french (Abbé St. Pierre, 1713), italian (Marquis di Beccaria, 1735–1794, humanest of jurists), german (Kant, 1796) and english hands (Bentham, 1789, and Stowell, 1745–1836; 1798 he became judge of the Court of Admiralty), to lead ultimately, once again in union with practical necessities, to the modern system of growing international law, soon to influence reciprocally also intranational systems of justice.

Antioch: the beautiful, the hellenic "crown of the East," the many-times-built city where the name of Christian was first used, mediating so powerfully from its foundation (about 300 B.C.) by Alexander's general downwards between East and West in politics, commerce, religion, and philosophy, by reason of its situation, by road, river and sea on the great line of communication

between Asia and Europe, once rivalling in learning, splendour, and population, Rome herself.

Ephesus: fabled to have been founded by Amazons, probably signifying thereby its rise and prosperity under a rule that was matriarchal or gynocentric; a sacred city from an early period, dedicated to the goddess Artemis (Diana), containing the largest of the Greek temples; the first Christian Church was established here with Timothy as bishop; here, for three years, St. Paul resided; St. John the Divine and the Virgin Mary are reputed to have died in this great city (sanctity increasing repute and repute increasing sanctity); a city famous, too, for art craftsmen and possessing at one time temple-works by Praxiteles.

Smyrna: of helleno-semitic culture, a flourishing and highly civilised city at least 700 years before Christ.

Tabariah (now Tiberias): illustrious jewish school of law where was finally compiled and redacted about 190–220 A.D. the Mishna ("Oral Law"), the body of the juridico-political, civil and religious code of the Jews, the complement to the ancient Mosaic (Written Law); in this great work of scholarship the name of Jehudah Hanasu stands out; the influence of the judaic spirit of law upon culture and civilisation is ancient, continuous, profound, and far-reaching.

Not unmentioned should be the once great names of *Rhodes* (founded as city-capital of the island in 404 B.C.), illustrious for schools of sculpture, painting, architecture, literature, oratory and science; through Rhodes passed the first meridian of ancient geographers; and *Tyre*, with its widespread maritime culture, probable phoenician ancestor of Carthage.

Carthage itself, proud rival of Syracuse and then of Rome, once famous for its medical learning and its temple of Æsculapius, God of Health, himself deriving from the still more ancient Egyptian hygiene, medicine, theology, and ethics; perhaps again to

flourish in co-operation with the neighbouring modern *Tunis*.

* * *

Ancient Universities: (*b*) *Indian, Chinese and Japanese.*

Though many schools of indian, chinese and japanese culture date at least as far back as the hellenic and roman, our knowledge of them as a citizen of the West is too scanty to enable us to include them here; we therefore confine ourselves to a small number of somewhat later date as a whole in the brilliant group of Middle Eastern and Far Eastern schools and universities.

Between those parts of Asia now known as India, Turkestan, China and Japan, there has for long centuries been the closest educational relation, famous teachers passing from one country to the other, and students wandering more numerously, diligently, and widely than even our own wandering scholars in mediæval European times. There is an authentic story of a great Indian conquering king whose chief glory was that, in his most notable expedition, the greatest trophy brought back was the chief poet at the court of his adversary.

This second group contains the names of *Benares* (Varanasi), of ancient date, one of the seven sacred cities of Hinduism; now again about to become the seat of an All-Indian University with future vast consequences to Indian culture directly, and to world culture thereafter;* then the ancient city of *Salandra* (Behar, India), famous for about four hundred years (400–800 ? A.D.) for its schools of philosophy, astronomy,

* Since this was written the University has been founded, though, it would appear, more justly to be described as all-Hindu than all-Indian.

mathematics, medicine and art; here flourished Aryabhatta, great astronomer and mathematician, who established the truth of the revolution of the earth on its axis centuries before the theory of our own European Copernicus, though there is good ground for believing that certain of the Hellenic astronomers (including Eratosthenes) were well aware of this truth, and intercourse between Grecian and Indian cultures was for centuries of an intimate kind; yet it is believed that this famous discovery was independently made by the Hindu astronomer: this, too, was the era of Kalidasa, the Indian Shakespeare.

Ujjain: also one of the sacred cities of India notable for its mathematics and astronomy; where the fine mathematician Brahmagupta flourished about 650 A.D.

Patna (the ancient Pataliputra): also celebrated in science as the home for some time of Aryabhatta (about 525 A.D.)

Loyang: ancient city of China, famous for its schools between 600 and 900 A.D., an era of wide philosophical synthesis and remarkable religious toleration, embracing Confucianism, Buddhism, Muhammadanism, Zoroastrianism, and even Christianity itself.

At *Singanfer* flourished the Emperor Genso (713–755 A.D.) of the great T'ang Dynasty, called by Mr. Binyon the Lorenzo de Medici of China, the culture of whose court and schools is reputed to have surpassed even that of Baghdad and Damascus.

Nara: famous city of Japan, where flourished between 700 and 800 A.D. teachers of law, architecture, sculpture, and painting; city where was made the Roshana Buddha (the Buddha of the Law), fifty feet high, the largest statue of cast bronze in the world, a marvellous feat of artistic and mechanical power, a statue to this day reverenced by countless pilgrims, and uniquely preserved amidst the ruin of the city caused by an overwhelming tidal earthquake.

Though attention is confined in the main in this

second group to middle and far east, the mediating and transmitting world *rôle* of semitic (jewish and muhammadan) culture on land, paralleled only by the corresponding *rôle* of christian culture on the seas, justifies the inclusion here of *Cairo* (the University of al-Azhar —the resplendent), founded in the ninth century, with its school of muhammadan law and theology, studies so intimately fused in Islamic culture; now again likely to become still more famous with the recent restoration of the Sultanate of Egypt; a university attended at the present day by nearly ten thousand students drawn from the Malayan Archipelago in the Far East to Madagascar and Morocco in the Western hemisphere.

Lhassa (L'hasa, "God's House"): sacred city and capital of Thibet with its Chiakpori (Chokpori) University of Medicine granting degrees in this art, and its Dai-pung school of Buddhistic philosophy: the city where Northern Buddhism was introduced about 600 A.D.

In this group of civilised peoples and regions it has been well said that in the ideal trinity in unity of the good, the beautiful and the true, Chinese culture seeks pre-eminently the good, Japanese the beautiful, Hindu the true.

In ultimate analysis man and his environment are one; each element of the whole ceaselessly acts upon the other and is reacted upon thereby. A tenacious grasp of the geographical conditions is thus indispensable to a reasonable understanding of the evolution of culture.

From the biological and deterministic standpoint of philosophy of history the very religions of man are but the spiritual flora of the great earth regions. Elsewhere we put forward the view that, of the six elemental world cultures, muhammadanism* breathes the spirit of the desert, confucianism* the spirit of the river-valley, judaism* of the mountain, christianism* of the ocean, buddhism* (hindu) of the forest, hellenism*

* These six terms are used to signify not the actual corresponding forms of religion as now or formerly existing, but the permanent eternal spirit inspiring each at its highest and characterising it relatively to the others, *whatever be the names historically borne.* The actual form of each

of the heavens above and the earth beneath, and pre-eminently of the air and the mine.

Elsewhere too has been considered the respective correlation of these six elemental cultures with the basal occupations and pre-eminently with the life (and death) cycle of man, and their rootedness in the six corresponding characteristic periods of man between birth and death (childhood, adolescence, maturity, mid-life, senescence, eld); here it is enough to emphasise the essential unity of all culture corresponding to the essential unity of life itself; though now one period or element, now another rises into temporary prominence.*

To balance these views on the deterministic line of science let it be added that, from the complementary creative and psychic standpoint of the philosophy of history, as envisaged in Eastern thought, religion in its turn may be sublimely conceived as the spirit of God in man creating and recreating continuously his own life and his whole environment,† terrestrial and celestial alike; difficult as it is for the sober Western thinker to find place for celestial control in his philosophy.

* * *

at any period, when fully and impartially interpreted alike inwardly (prayer) and outwardly (ritual), embraces the substantial elements of the others, and is appropriate to conduct man nobly through all periods of life, with its joys and sorrows, with its duties and rights, with its pleasures and pains, from cradle to grave. All observed forms of religion are analysable into one or more of these fundamental elements or components (*e.g.*, Zoroastrianism, Hinduism, Roman religion, Egyptian, Scandinavian, and so forth).

* Hegel, amongst others, made some researches in this direction. Worthy of Western study is the great Persian philosopher-poet, Jalaluddin (1207–1273, A.D.).

† Further, just as the ideal of world citizenship is implicit in the humblest family membership, and becomes increasingly, though never perfectly, realised in the successive experiences of family (with its three generations), city-region, nation, and race of which it is the culminating synthesis; so is the ideal of monotheism implicit in the worship of the family spirit (alike ancestral, contemporary and descendantal), and becomes increasingly though never perfectly realised in the successive worship of the hearth-spirit (Vesta, with her Lares and Penates), the genius of the city-region (genius loci), the tribal deity and the national pantheon, the racial-god, rising at length into the cosmic spirit, which is the culminating

Third period of Euro-Asiatic Contact: (a) Saracenic Universities (from about 650–1200 A.D.).

Next we pass to the third period, and enumerate the group in which are *Samarcand* (Samarkand, the ancient Maracanda of Cyrus and Alexander), famous for mathematics and astronomy; *Baghdad* (successor of the famous helleno-semitic (?) *Seleukia*, itself descendant of the ancient Babylon on a site where converge the mighty twin rivers, Tigris and Euphrates, matriarchal and patriarchal names respectively), culture capital of the eastern caliphate, noted, as Marco Polo tells us, in his time, for medicine, mathematics, astronomy, astrology, geomancy, and other sciences (the seat of the (saracenic) muhammadan caliphate from 762–1258 A.D. passing under Turkish rule in 1638); *Cordova*, culture capital of the western caliphate, the spanish saracenic city famous throughout the West and the Near East, before the european universities of mediæval times were founded, for a similar group of sciences and arts. To the end of a more understanding and therefore sympathetic interest in saracenic culture we add one or two observations here. Apart from the high indebtedness of chemistry to alchemy, and of astronomy to astrology, which are commonly recognised in the West, modern european science, regarding only the blunders, errors and gross superstitions arising from the abuse of astrology, geomancy and alchemy, has failed to recognise, and profit by the saner conceptions and aims of these arts of life, with the result of handing over an elaborately evolved and valuable symbolism for the most part to quacks, and

synthesis of all. May we not say that monotheism, emptied of these, its necessary hierarchical stages, alike in the evolution of all humanity and the education of each individual, is as vague, unsatisfying, and unfruitful a religious belief as is cosmopolitanism emptied of home and citizenship, of patriotism, and race? In the final synthesis, the spirit of world-citizenship is the spirit of world-religion; and thus alone does man abide terrene, yet become cosmic; never cease to be dust, yet ever remain a deity.

divorcing man himself from his ancient patrimony of reverent co-operation and sympathetic soul communion with the more recondite revolutions of natural phenomena, alike material and organic, and thereby largely dehumanising scientific learning through the influence of a purely materialised science on literature, philosophy and art. In a word, man has again to discover his vital relationship to mother earth, a sublime truth never wholly lost in our own english poetical tradition.

Cairo: already mentioned, but so important that it merits further attention especially at the present world-crisis, for one of the most influential teachers or professors at Cairo was the philosophic historian Muhammad Ibn Khaldun (1332–1406 A.D.; born in Tunis, considered by a competent authority, the late Professor Flint of Edinburgh, to be the first great scientific or philosophic historian of recorded times, unequalled in this respect till the appearance of the Italian Vico three centuries later (1668–1744, with his Scienza Nuova, 1725–1730); Ibn Khaldun's "Universal History," and especially its suggestive "Prolegomena," still deserves the serious study of sociologists and historians; a useful epitome is contained in Flint's "History of the Philosophy of History."*

Perhaps the most fertile conception of this philosophic historian is the statement, now so commonly understood but awaiting further research, that empires and kingdoms, cities and governments are subject to the universal law of birth, decay and death. The same idea arises again with Vico. The further task of the future historical philosopher is to carry out more penetratingly, both in general principle and by the exhibition of authenticated events, the correlation or parallel between the lives of communities from hamlets through vast cities to the largest empires or republics, to the lives of individual human beings. All things are self determining and unique, men, institutions, communities, and states; yet each is also subject to universal

* William Blackwood, 1893.

laws or conditions of natural existence. Just as the individual passes commonly through birth, childhood adolescence, maturity, midlife, senescence, old age, and death, so is there increasing ground for believing that an identical universal law governs the lives of communities and institutions, whatsoever be their size; but broadly speaking the duration of that life will increase with the size of the group under consideration. Similar laws appear to hold for the life of ideas.

Further, the simultaneous co-existence of all life periods, in the mingling of old age, youth, and mid-age —the three larger generations—whether in families, tribes, institutions, nations, or states, offers at once the richest field for the co-operation of sympathy and the greatest temptation for the conflicts of antipathy. Nor, we believe, does the analogy end here. Disease and accident may cut short the life of the individual while corresponding events may happen to communities.

Burke, in a famous passage, denies any substantial analogy between the life of an individual and the life of a nation; herein we venture to think that great historical critic has erred. Rather does the increasing voice of philosophical history emphasise, from Plato, Aristotle and St. Augustine downwards, to Vico, and Goethe, and Comte, a close parallel between the life of the individual and the life of the group.

A study of the passions and diseases of the body and soul individual would assuredly throw light upon the corresponding study of the passions and diseases of the body and soul corporate; and the latter again throw light upon the former. Life is one and indivisible, and the solidarity of mankind with nature and of nature with mankind is becoming recognised increasingly as of a kind at once broad and subtle, at once lofty and profound. The centuries are approaching in which alike for man individual, for families, for cities, for nations and for empires, the question of questions

will become—how is the life of individual or of group to be so conducted, consciously subject to the universal law of birth and death and the great periods and cycles of all existence, that, at the end, the life lived shall be noble of its kind, and an entrancing exemplar to those that come after whether the duration thereof extend to years or generations, to centuries or millenia ?

* * *

Cordova : famous in the West as *Baghdad* in the East as a centre of wide Saracenic learning and literature from the eighth century to the twelfth, with schools cultivating literature, philosophy, art, medicine, astronomy and mathematics, centres these of culture (with other arabian schools), whose influence both in their own native productivity and in the transmission and extension of hindu and hellenistic civilisation to mediæval Europe can scarcely be exaggerated.

The Arabian scientists link up Pythagoras and Ptolemy with Roger Bacon, Leonardo of Pisa (who studied mathematics in Northern Arabia, and brought to Europe about 1200 A.D. the arabianised hindu numerals with the wonder-working Zero), Copernicus and Descartes in mathematics and astronomy ; Aristotle (through Averrhoes and others) with the subtle mediæval schoolmen and the poet Dante ; and hindu and hellenic medicine and chemistry (through Serapion, Rhazes, Avicenna and later scientists) with the earliest european medical and alchemical schools ; modern researches have gone further and traced a substantial debt owed even by the medical art of the hellenic "Father of Medicine" (Hippocrates) to hindu physicians, who, under buddhistic influence with its markedly penetrating insight, inspired by compassion for suffering animal and man, into the conditions of health and disease, made remarkable progress in medicine, chemistry and surgery ; Haroun-al-Rashid (Aaron the Orthodox)

of *Baghdad*, in the eighth century after Christ, retained two hindu physicians at his court.

Saracenic Spain at one time possessed seventeen universities and seventy large libraries, and the subjects were so wide as to include history, literature and art, philology, mathematics, astrology and astronomy, alchemy and chemistry, medicine, theology and philosophy.

Many races co-operated with the Arabs, particularly Indians, Greeks, Syrians, Jews, Persians, and even Franks, Italians and Spaniards. Learning was again substantially cosmopolitan.

The sack of Baghdad,* in the 13th century, "was a more terrible event than that of Merv or Herat, inasmuch as the city was the centre of the Moslem world. . . . Moslem civilization was at that period the shining light in the world, and it has never recovered from the deadly blow. The awful nature of the cataclysm which set back the hands of the clock of progress among Moslem states, and thereby indirectly throughout the world, is difficult to realise and impossible to exaggerate."

* * *

Third Period of Euro-Asiatic Contact: (b) Byzantine.

Partly contemporaneous with the above, next appears the too little appreciated outburst of culture of the mediæval half-millenium of the brilliant *Byzantine* Empire, born in the main of the contact, partly conflicting, still more co-operant, of the newly arisen Saracenic civilisation and culture of the Near East, practically dating from the first Muhammadan capture of Jerusalem by the Arabian Caliph Omar in 637 A.D., and extending to about 1204, when Constantinople (Byzantium) was captured by the Latin Crusaders (French and Venetians).

* "A History of Persia," by Lieutenant-Colonel P. M. Sykes (Macmillan).

Ravenna (Tomb of Dante): refuge of ancient Roman law after the destruction of the school of Rome, receiving from her the books of the law, and subsequently transmitting these to the young school of Bologna; home and refuge of the Byzantine Emperor Honorius (402 A.D.) and the capital of Italy thereafter for 350 years; uniting with success the varied cultures of Near East, Middle West and Mediterranean (roman, gothic, hellenic, and in part co-operatively in part antagonistical, saracenic and jewish) by the wide and profound synthesis of her historical vicissitudes (evolving through all types of government, from imperial to papal and republican), not inappropriately the final resting-place of the supreme european philosopher-poet, Dante.

In this period may also be named *Ragusa*,* that wonderful city republic of perhaps unique history; exquisitely placed on the Eastern Adriatic, periodically mediating, for so many centuries, between different and even opposing cultures and civilisations (including hellenic, roman, and slavonic) from late hellenic times downwards, though perhaps reaching its zenith of learning in the fifteenth, sixteenth, and seventeenth centuries.

With the world-wide political, economic and scientific opportunities ultimately opening out after the inevitable reaction to the world war has passed, Ragusa may again be destined under happier auspices to a cultural and economic renascence, profiting by such modern examples as that of Glasgow which, by courageous enterprise and foresight, deepened its docks, and thereby rejuvenated itself in commerce, shipbuilding, industry and culture. The very diplomacy of Ragusa forms a model to statesmen for its retention during several centuries, in the face of almost unparalleled obstacles, of its independence, substantially by masterful negotiations of a peaceful and industrial kind, backed by a

* Dubrovnik (Slav.). Not to be confused with the Sicilian Ragusa.

spirit of religious toleration, rather than by reliance upon offensive force.

Trebizond (Trapezus): ancient Greek maritime city, colonised from Sinope, dating from 756 B.C., or three years anterior to the foundation of Rome, famous in Xenophon's story of the "Retreat of the Ten Thousand," excellently situated on the Black Sea to mediate in the transmission of culture between East and West, through the variety of commerce (European, Arabic, Persian, Indian, Chinese) once meeting in its harbours and markets, maintaining its independence against the Turks till 1462, after over 250 years of rule under princes of the Byzantine imperial house of Comnenus, founded by the self-styled "Grand Comnenus" after the sack of Constantinople by the Latins in 1204; the city is now again rising into importance by reason of the commerce from Persia passing through it to Northern Europe, and as the point of departure of the great caravans from Asia Minor to the East. Education will doubtless flourish there again as of old.

* * *

Feudal and Mediæval Period of Europe: Fourth Period of Euro-Asiatic Contact (*Conflict and Co-operation*). *About* 1000–1500 A.D.

Next follows that wonderful Feudal period of Central and Western Europe, with its philosophy, science, poetry, and architecture, from the eleventh to the fourteenth or fifteenth century, largely consequent upon another intimate and great contact—a contact of races at first conflicting, later, with deeper mutual understanding of a common humanity, co-operative in nature; then again with periodic reversal of attitude so characteristic of all but the happiest human families—between East and West, whose effects upon the East, even to China and Japan, will occupy the future world historian, and whose influence upon the West we know as the

Crusades (1096–1294 A.D.), the reply of Europe to the capture of Jerusalem in 1076 A.D. and of other conquests by the Muhammadanised Turks, and the subsequent fuller awakening of the West to the rich industry and varied learning of the Near East, not forgetting the continued stimulus of the preceding epoch of saracenic power.

To this Feudal period belongs the University of *Salerno,* at its zenith during the eleventh and twelfth centuries, during which its far-famed Medical School included distinguished lady doctors—wives or daughters, it appears, of the medical men—(Trothula, Abella, Mercurialis, etc. *) ; a characteristic attitude this, of Italy, to her great women, and doubtless deeply rooted in the ancient Etruscan culture, lying beneath Roman civilisation, in which there is increasingly strong evidence of the survival of matriarchal custom, itself not lightly connected with Vestal worship, the Sybilline traditions, and the rapid spread of Madonna and Child worship later upon the rise of Christianity.

This blossoming forth of female medicine from time to time in the academic and professional world is rooted in the great abiding hygienic and curative *rôle* of the family mother of the babes, exibiting itself, too, in the woman herbalist and gardener with her unmatchable union of use and beauty exquisitely symbolised in the Garden of Eden. We may with great confidence prepare for a real renascence of the woman gardener in school organisation and city design.

The precise history of the University of Salerno lies in deep obscurity ; but the general situation of the matter points to arabic influence in alliance with the old hellenic hippocratic traditions in Magna Græcia.

Italy also contributes the second name in point of time: *Bologna* (Etruscan Felsina ; later conquered by

* See "Of Six Medical Women," by Alice Kemp Welch (Macmillan & Co., 1913).

the Gauls and named Bononia), colonised by Romans 90 B.C.; Charlemagne* constituted it a free city about 800 A.D. whence its proud motto "Libertas" with second motto "Bononia docet"; the other well-known epithet "Bologna la grassa" derives from its wealth and prosperity, and the fine health of the inhabitants due perhaps largely to the high development of the culinary art.

Bologna, with its famed school of Law, initiated by Irnerius (Guarnerius), illustrious later also for mathematics and astronomy with the teachers Copernicus (himself a Pole, 1473–1543) and Galileo (1564–1642), for medical studies with Malpighi (1628–1694) and Galvani (1737–1798), later still for veterinary medicine and studies.

Then come the Universities of *Paris*, *Oxford*,† and *Cambridge*,‡ whose very names awake their wide glories; *Modena* (twelfth century), *Vicenza* (1204), *Padua* (1222), all three strong schools of civil law; *Naples* (1224), founded by the versatile and cultured mystic and statesman Frederick II., (so fertile a combination of temperaments), a university with chequered fortunes; St. Thomas Aquinas taught here from 1272–1274; *Toulouse* (1233), the first university founded by papal charter.

Montpellier (founded 1289), famed for schools of arts, law and medicine, the last founded by an Arabian physician; celebrating its sexcentenary in 1890, with reorganisation upon the fullest scale of equipment suggested by modern science.

Orleans (constituted as university, 1305): reputed to have existed as a school in sixth century; surpassed for legal studies by no European university in fourteenth century.

* For an account of the debt of Europe to the great educational reforms of Charlemagne in his linking up of the great monasteries of Europe, and the independent debt to the monastery of Monte Cassino, chief centre of culture in the Lombard Duchy of Benevento, see Einhard's "Life of Charlemagne": the Latin text edited by H. W. Garrod and R. B. Mowat: Oxford, Clarendon Press.

† Of its Colleges, St. Edmund's Hall dates from 1226.

‡ Of its Colleges, Peterhouse dates from 1257.

Cologne (Koeln, Colonia Agrippina): not strictly established as a university till the later period (1388–1794); but, anterior even to the period here dealt with, celebrated for its schools of philosophy, science and theology. Here taught three of the greatest schoolmen, Albertus Magnus (about 1200–1280); St. Thomas Aquinas, his pupil (1225–1274), and Duns Scotus (died 1308).

Aristotle was at this period studied in Arabic translation (Hebrew and Arabic, as well as Greek, having been long taught in some of the German schools of theology); and music, with the artistic arts and crafts, later much neglected in so many of the universities, attained a high practical and academic position, especially in such early schools as those at *St. Gall* (under the guidance of its monastery, founded 614 A.D.), known throughout Europe for its library, music, painting and engraving.

At its zenith, equal fame enjoyed spanish *Salamanca*, founded about 1230 (?)–1243, itself the earliest known university in Europe to institute both teaching and degrees in music, though for at least a thousand years before the Christian era Chinese schools in the East had included the science and art of music as an essential element in the education of statesmen and administrators, as incorporating and symbolising the soul of harmony and conciliation of discords.

Avignon (1303) (jurisprudence, arts and medicine).

(*Angers* 1305).

Then comes *Florence* (1320).

Dublin (with its first university founded in 1320 in connection with the ancient St. Patrick's Cathedral and Monastery); *Cahors* (1332); *Pisa* (1338); *Grenoble* (1339).

Valladolid: founded as university about 1250, though the first mention of a medical school is in 1137, probably of Saracenic and Jewish source of origin.

Prague: German and Slavonic, founded 1348;

more fully considered later. *Pavia:* formally admitted as a university 1361, but famous as a school centuries earlier, perhaps founded by Charlemagne. Then *Cracow* (1364). "During all the period of the Jagellonian kings, when von Sybel can only discern the traces of a resolute military government, Poland was entering on the path of great internal reforms which tended in the direction of greater liberty and freedom. In 1367 a Faculty of Law was opened at Cracow. In 1400 this was transformed into a university with four faculties—theology, philosophy, law and medicine. Copernicus brought his new and revolutionary science to the youth of Poland. The ideas of the Reformation flowed into the country, but that less in the form of criticism of ritual and dogma than in the political [form] of the release of the national church from a dependence on Rome." *

Truly, as Faraday said of inquirers into physical nature, the eye finds what it brings with it; nowhere more true, perhaps, than of inquirers into human nature, of which tribe are historians. One man may truly find liberty where another finds despotism; but are they not seeking in different fields of human action?

Vienna (1365), with its now world-wide school of medicine, and long noted for its artistic crafts; *Heidelberg* (1385); *Ferrara* (1391), during the fifteenth century one of the most distinguished schools in Italy; in modern times noted for medicine. *Turin*, dating from 1404, refounded 1713. Finally, though nearly falling both in spirit and date into the next distinct period, come *St. Andrews*, the first Scotch university (1411); *Würzburg* (1402; and reorganised 1582, still as catholic); *Leipzig* (1409; world famous now in so many faculties, founded by Saxon princes to compensate for loss of Prague, whence German scholars and teachers had migrated after the Hussite movement; closely united with its

* J. H. Harley, "Prussianism and the Poles," *The British Review*, October, 1915.

great university is the splendidly mediating position of Leipzig with its world-fair round which grow schools of law and artistic and technological developments of printers' arts and crafts); *Rostock* (1419), the last German university founded in this period, the fine fruit of co-operation between city and regional reigning prince.

Of the seven Germanic universities created in this period, five still flourish.

Turning for a moment to Belgian and French; *Louvain*, 1426 (Catholic), reorganised 1835, attended by nearly 3000 students before the world-war, which, for a time only be it hoped, has scattered teachers and students; *Poitiers* (1431); *Caen* (1437); *Bordeaux* (1441).

Glasgow (1450), based upon Bologna and Paris.

Barcelona (1450), nearly 2500 students now being in attendance; *Nantes* (1463); *Bourges* (1465); *Upsala* (1477); *Cöpenhagen* (1478), (distinguished for literary and antiquarian activities); and *Aberdeen* (1494). Certain of these, though classified with this period of culture, partly fall within the succeeding period. In any classification there must inevitably be overlapping on contiguous borders.

For a special reason that will become obvious, we return a moment to Prague University.

Prague (German *Prag;* Czech *Praha*): the original university founded in 1348 by Charles IV. (himself previously a student at Paris university), who obtained a Papal bull authorising the foundation of a "studium generale" in all the faculties; the form and spirit of the new university partook mainly of Paris, but partly, too, of Salerno and Bologna; attracting students from all parts of Europe to its generously endowed schools and reputed (though it must be remembered this was a common exaggeration of the monkish historians), to have had ten thousand students at the beginning of the fifteenth century; students came from all parts

of Germany, from France, from Lombardy, Poland, Hungary and England. Later it suffered severely during the Thirty Years war (1618–1648), and even down to the modern European Revolution at the end of the eighteenth century; in 1881 it was revived with a new constitution, divided into two co-ordinate parts, one german and one slavonic (Czech); and by the year 1900 was attended by about 1500 german and 2500 slavonic students respectively; this two-fold university affords one of the most striking examples of the dominance of racial and national considerations and spirit in the evolution of the modern university, a spirit both admirably fertile and yet also, when rivalry is unwisely guided, chauvinistically narrowing; once, again, evidence for the growing need of a university, internationally mediating and world embracing, which shall aid in the removal of the narrowness without obstructing the regional, national, or racial productivity: Prague, once the capital of Central Europe when the ruler of Bohemia was the ruler also of other great states, including Austria and Styria, and in the time of Charles IV. the seat of the first university founded in Central Europe: also possessing the first botanical garden, the cradle too of modern journalism, for the first newspaper in the world was published in the Bohemian (Czech) language: here also the first systematically arranged exhibition took place in 1791, thus initiating that great series of international exhibitions which, not only for commerce and industry, but also for culture will become of increasing importance for the furtherance of harmonious international relations, so that each great university will come to consider as one of its important functions the organisation of a culture exhibition, showing alike its own history, its relation to its own state and its connections with other universities, embracing too its influence upon the whole educational system of the country of its birth.

Remembering further the important position of

music in the academic as well as the outer world, a position recognised profoundly from ancient times all over the East, also in hellenic civilisation and culture, nor neglected during the middle ages for its important services to the Church (so that the general educational history of man would appear to justify a prediction of the coming higher position of the theory and art of music in university evolution), it is fitting in connection with Prague to add that in this city Mozart composed his opera, "Don Juan," an event in the evolution of music that was epoch making.

We have reverted to Prague by reason of the noble cultural *rôle* it once played throughout Europe, and from a quiet conviction of a renascence of its former glories if a reconciliation, inspired by magnanimity on each side, can be gradually developed in the noble work of education, between the two great races, sundered in spirit for so many sad centuries; though the very geography of Bohemia calls with abiding persuasiveness for great-souled co-operation between the mountain-ringed Bohemian and its sea-bordering neighbours. Is it prophetic of its future, as well as descriptive of its past that the great sculptor Rodin should have named Prague, "*The Rome of the North*"?

* * *

General Characteristics of Mediæval European Universities.

Rashdall,* the great authority on mediæval European universities, whom we follow in the main, classifies these into three broadly differentiated types, of which Bologna, Paris and Oxford are the primary representatives. In later paragraphs the spirit, alike more catholic and cosmopolitan relatively to modern times, and the form of this University period is more fully considered;

* Rashdall, "The Universities of Europe in the Middle Ages" (2 vols., Oxford, 1895).

here the varying types within the whole are briefly enumerated and touched upon.

Type I. Mediæval Italian Universities: mainly democratic, municipal and secular in spirit.

As village life and organisation underlie all Indian civilisation, and survive all waves of external conquest and internal change, so is rooted in italian municipalities a powerful civic spirit of independence, never wholly submerged even in circumstances the most unfavourable whether under the rush of northern barbarism or the deadly feuds of Pope and Emperor.

To this spirit, with its tenacious retention of the substance of ancient Roman law, itself the gradual evolution and extension of civic justice to all mediterranean nations, is mainly due, internally viewed, the steady growth of the mediæval Italian universities, their general mode of guild organisation and self-government as guilds of mature students, and their successful prosecution of such practical studies as law, rhetoric * (as one of the essential aspects of law) and medicine with its underlying sciences of material and organic nature. This spirit and these characteristics persist to the present day. They have enabled Italy to send teachers to all European countries. Through France in particular, Italian schools taught Europe law, medicine, mathematics and physics, and, later, veterinary and agricultural studies. And, through Europe, her schools have taught the world these mighty secular sciences.

In mediæval times the student was above all a wandering scholar becoming for a time a privileged citizen of each university town he visited ; the general use of Latin as a common tongue, spoken and written,

* The position and function of *rhetoric*, as the science and art of oratory, the completest expression of characteristic human power, has fallen sadly into disfavour in the curriculum of modern universities; its revival, with acted drama, may be anticipated in the coming generation.

was both conducive to this catholicity of studentship and teachership, and the most ubiquitous symbol of the existing western catholicity of belief.

On the model of Bologna were largely founded the later Italian universities, the provincial French, and to some extent the Spanish, and the Scottish Glasgow (modelled still more largely on Paris). From Paris University derive in the main the German speaking and Scotch. So important was Bologna University for the future of European learning in the above and other respects, that we quote freely * from the masterly address of Carducci at the octo-centenary of the University in 1888. Carducci (1836–1907), as lawyer, philosopher, historian, and above all as poet, and further as professor at the time in the university, was in a unique position to inspire and inform in his address to the representatives of universities throughout the world. Due allowance must naturally be made for the colouring brush of the then time-spirit, for the enthusiasm of the unique occasion, and for the political influence on Italian culture of the then recent Triple Alliance between Germany, Austria, and Italy, formed and confirmed 1883–1889; but it is, with certain obvious precautions in forming our own judgment, useful, and, in the end fairest, to quote the words of a great man about his own university wherever we can find such fitting utterance. The high position claimed by Carducci for the influence of law on civilisation will be also noted.

Carducci on the Octo-centenary of Bologna University in the year 1888.

"To our ancestors of the eleventh century, while Europe scarcely showed symptoms of emerging from an

* See John Kirkpatrick, "The Octo-centenary Festival of the University of Bologna, June, 1888" (J. Thin, Publisher to the University, Edinburgh, 1888). The author is highly indebted to Emeritus-Professor Kirkpatrick, LL.D., for generous permission to use his scholarly and eloquent translation of Carducci's address.

age of iron, is due the glory of reconciling the modern blood with the ancient, and of re-uniting Italian vigour with Roman good sense. Never indeed had the spirit of Roman culture sunk to a lower ebb; law alone, the last gleam of the setting sun of Italy, illumines the Gothic obscurity and flashes at intervals through the legislation of the Lombards. At Rome, however, the imperial School of Arts and Jurisprudence continued to exist; in Greek Italy the School of Ravenna preserved the Books of Justinian and cherished the juridical culture of the East; and in Lombard Italy the School of Pavia was proceeding to found a system of Germanic Law upon the ancient *Jus Romanum.* And when Roman culture, like a civil dictatorship over the Christian nations, was consecrated by the Church, together with the restoration of the Empire in the conquering nation, Roman Law appeared to rise in the esteem of the peoples as being common to all. At the beginning of that century which saw the School of Bologna established before its close, the third Emperor Otho, in delivering the codes of Justinian to his Roman judges, said to them, 'According to these judge ye Rome, the city of the Leos, and the whole world.'"

"In the conflict between Sacerdotalism and Empire, in the struggle between the supremacies in the course of which the mighty power of Rome was shattered, we still find lingering traces and gleams of that power. Thus, the victory of the Italian Pontiff, unarmed, a prisoner, dying, seems like a victory of mind over matter, of will over force; his voice resounding in the ancient tongue from the Seven Hills, seems at times to echo the thunder of the Roman edicts against the kings of the earth; while the Germanic Emperor, rising afresh from his oft renewed disasters, is inspired with a truly Roman constancy in defending and protecting the constitution against sacerdotal encroachments: on the one side Christianity, imbued with Romanism, aspires to political power; on the other the spirit of Roman culture opposes it with Germanic arms. In the midst of the conflict between these two powers, which also represent two distinct ideas, the Italian people was born anew, and received something

from each: from the Church the notions of popularity and revolution, and from the Empire those of authority and tradition. And the Empire found champions of her cause,—not in the School of Rome, which had languished under the theocracy, nor in that of Pavia, but at Ravenna. The School of Ravenna while disseminating the study of law throughout Lombardy, as far as Pavia, continued to flourish with more vigour within the bounds of its own Roman territory. It was at Ravenna that Pietro Crasso advocated the cause of the Emperor Henry IV., importing Roman Law into political reasonings, and discussing the origin and titles of the supreme power. And this, a thing unheard of during the despotism of the ancient Empire, actually occurred during the first dawn of Italian liberty, about the year 1080, when according to Odofredus, the books of the law were carried from Ravenna to Bologna."

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"After the vigour of the Italian people, increased by the contact of the Roman with the Germanic element in the municipalities, had attracted the feudal nobility from the country to participate in town life, the Roman cities exercised their jurisdiction by means of magistrates freely elected. How and when consuls succeeded the counts and the bishops is unknown; nor is it known how and when the popular teaching of Roman Law began at Bologna. But certain it is that these two events, corresponding in point of time and origin, were not dependent on the will or exertions of any one set of men or on one specific cause, but were the offspring of a constant evolution through which the Italian people progressed to their political and social regeneration, now resuming and freely exercising the right to practise every possible branch of civil activity."

"The School of Rome having been destroyed, the books of the law were carried to Ravenna, and from Ravenna to this city of Bologna: such, according to Odofredus, is not merely a tradition but an historical fact."

* * *

"In the 'sweet plain which slopes from Vercelli to Marcabò,' as in prehistoric times there once surged a vast sheet of water, so in the eleventh century, the time preceding modern history, a tumultuous sea of life, made up of the various elements of Italian history, rolled down from the Alps to break against the Apennines; and beyond the Apennines, and along their ridge, the ancient Tuscany, Umbria, and Picenum responded to the struggling aspirations of the youth of Lombardy. Bologna, midway at the foot of the Apennines, facing the Lombard kingdom, and flanked by the Exarchate and the Pentapolis, welcomed the confluence of spirits awakened to new life; and from Ravenna, widowed of Empire, and through the cities of the Romagna, which had perpetuated the customs and laws, as well as the name of Rome, she received the imperial heritage; and again from Pavia, widowed of supremacy, and through the medium of the cities of the Emilia, she inherited the last fruits of the Lombard regeneration. It was then that Bologna, posted like a sentinel at the foot of the Apennines on the outlook for a new Italy in the valley of the Po, began to fulfil her allotted task. And then, sweet music, resounding in silver tones from the cloisters of Pomposa, seemed to greet the renascence of the Italian people; and the towers springing up in the fora of the ancient Roman cities proclaimed the condescension of feudal lords to embrace civic life; and new churches arose in mingled architectural styles, as if in benediction of the union of the new citizens; and Bologna, the Umbrian, Etruscan, Celtic Roman, and for three centuries Lombard city, opened her arms and clasped to her bosom the budding germs of all this wealth of life and accepted her noble mission of new moulding society in accordance with the great surviving principles of ancient law."

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"The Bolognese School of Law arose by a process of evolution from an earlier institution, fertilised so to speak, by pollen from the blossoms of Ravenna. There already existed at Bologna a respectable school of liberal studies

among which, according to Italian custom, law was included. A certain Pepo, whose name is mentioned about the year 1077 as a doctor and advocate pleading in presence of the Countess Matilda, expounded the law here, while grammar and dialectics were taught by Irnerius. A little later, on the decline of the School of Ravenna (possibly in consequence of the quarrel between Gregory VII. and Archbishop Guiberto, the Anti-Pope) when the books of the law, together with the traditions and methods of that school were transferred to Bologna, Irnerius began to study and then to teach law either with these books or in accordance with these methods. According to the chroniclers, he next proceeded to amend the laws at the instance of Matilda, and thus earned the title of the Lamp of Law; and in 1113 his name appears for the first time as an advocate in the presence of the Countess. The removal of the juridical traditions from Ravenna to Bologna may have been of the nature of a revolution and of resistance to the Empire."

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"Such then are the beginnings of the University of Bologna."

* * *

"The Emperor Frederick I. promulgated the constitution of Roncaglia in their favour in the year 1158.

"At Roncaglia the Bolognese doctors, like their master, exhibited their staunch adherence to tradition and to the Empire. But a few years previously in a monastery of Bologna, Gratian had compiled the Decretals; and the following year Alexander II., who had taught philosophy at Bologna, now ascended the pontifical throne. So that, when Frederick I. in 1158 secured to the school its privileges as a university, the confluence of the streams of knowledge and the new Italian life had already taken place; the study of Civil Law had been inaugurated by Irnerius; Canon Law had been systematised by Gratian, while the conservative authority of the Empire had encountered the spirit of liberty which animated the League of Lombardy."

"The School of Bologna sprang up and prospered as a

private institution, it was founded and fostered by private enterprise; yet throughout the history of the University we find repeated attempts to attribute its foundation to imperial authority. Now these were made in accordance with the spirit of the times, and they form the embodiment of an ideal truth. In the conscience of the middle ages the study of law goes hand in hand with the conception of imperial majesty, and the school follows the fortunes of the Empire, because, as a rule, it was the Emperor alone who could found schools. Hence the legend which traces the origin of the University back to Theodosius II., the founder of a system of public and private instruction in law. It is, at all events, undoubted that the method and aims of the Bolognese School were originally the same as those indicated by the constitution in which Justinian ordered the publication of the Digest, and by that in which he organised the study of law; and thence also proceeded the well-known tripartite division of the text adopted by the Bolognese teachers. The imperial school of law thus originated by Justinian and Theodosius, was, of course, intended to remain at Rome, but was afterwards transferred, in the manner already indicated, to Ravenna, and thence by a process of evolution, or perhaps of revolution, to Bologna. And having been re-established at Bologna as a popular school, it soon regained its ancient dignity as an imperial institution; but whether it was found in this condition, or was restored to it by the constitution of Roncaglia by which Frederick I., at the instance of the four doctors, renewed the privileges of professors and students once granted by Justinian, has not been clearly ascertained. Thus the genius of the Italian people, at once reforming and conservative, impresses upon every new acquisition of liberty, upon every advance in civilisation, the seal of history and tradition. And it was certainly from Roman traditions that the School of Bologna derived strength for the noble task allotted to her, and that she now inherits that international or cosmopolitan spirit which has been evolved from the revival of Roman culture in the middle ages."

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"The privileges of Roncaglia gave definite shape to the University of Jurists, or that corporation of the students of law of which the Studium of Bologna at first consisted. The University grew with Italian liberty; it was aristocratic down to the Peace of Constance (1178), and since then has been democratic in character. The constitution of the University seems in fact to have corresponded to that of the government, each advance of the nation being followed by corresponding progress on the part of the school. So, between the Peace of Constance and the sway of the Pepoli, Bologna attained her maximum of constitutional liberty, and the University the zenith of her European fame."

"The University of Paris, chiefly theological, was a university of teachers; that of Bologna, a school of law, was a university of students. These students, however, soon separated into two universities or corporations, that of the Italians or citramontani, and that of the foreigners or ultramontani, each of which was subdivided into nations. Each nation elected one or two counsellors monthly, and these counsellors annually chose two rectors from the nations in turn, one for each university. The rectors, when in the exercise of their functions, took precedence of bishops, archbishops and even cardinals. With the aid of the senate of counsellors, the rectors appointed professors, organised the curricula of study, exercised jurisdiction over the students and inferior university officials, concluded treaties with the civic authorities, regulated the relations of the university, particularly in regard to the purchase or sale or lending of codes, and administered the university revenues with the help of two stewards. Lastly, on leaving office, they were called to account by four comptrollers. Such in outline, was the constitution of the University of Bologna; and upon the same model were based the other universities of Italy, those of Spain, and the schools of jurisprudence of France."

"Its constitution was democratic. The fervour of independence which glowed in the Italian city seems to have affected the ultramontani also. The Franks, the Alemanni, the Bohemians, the Poles, who had flocked

hither from their feudal castles, from their abbeys, and from their seigniorial domains, here learned to submit to civil ordinances, experienced the advantages of living in common, and began to wish for equality. After the vicissitudes of travel, having crossed the Alps or arrived by sea, students from every part of Europe meeting here found their native countries again in the nations into which the universities were divided; in the university they recognised a miniature state; and in the common use of the Latin tongue they aspired to that higher union, that international brotherhood of civilised peoples for which Rome paved the way with her law, which the Gospel has proclaimed in a spiritual sense, and which modern culture demands through Reason. O Italy, beloved country! In the miseries of thy bondage thou didst delight in imagining the eagles of victory again flying forth from the Seven Hills over all nations, but perchance thy true glory, thy noblest revenge, were to be sought for at Bologna, where with the tongue of the ancient empire thou didst proclaim to the very nations who had oppressed thee the new gospel of civilisation, and didst teach them to throw off the yoke of barbarism and again become Roman!"

* * *

"To Bologna belong the origin and the history of her University; and accordingly the municipality rightly insisted on exacting from the professors and the students an oath that they would never carry the University beyond the Reno, and the bounds of the Aposa,* the privileges conceded to the professors by the Roman laws; and thus in stormy and perilous times this great seat of learning acquired a character of dignity and stability. But early in the second half of the twelfth century the University became still more permanently Italian, inasmuch as Bologna became the focus of the culture of the whole peninsula, and the foremost national temple of thought and science."

"Modena, Piacenza, the whole of Lombardy, and notably Cremona, both before and after the Peace of

* The rivers near which Bologna is situated.

Constance, gave professors to the University; so also did the Province of Verona, so also Tuscany. Florence even sent her a whole colony of teachers, headed by the Accursii, so much so, that the monuments of Florentine genius and learning prior to the time of Dante are to be sought for at Bologna. Students come from the kingdom of the south, and Lombards from Beneventum, and the great secretary Pier della Vigna return thither as masters. Throughout the whole of this period the intellect of Italy lives at Bologna; thither is wafted thought from every quarter, and thence it is disseminated throughout the whole world. Emigrants from Bologna found the schools of Modena, Mantua, Piacenza, Vicenza, and Arezzo, and above all, the famous University of Padua. And soon her influence extends beyond the Alps and beyond the sea; Placentinus, once an indefatigable professor here, becomes the first lecturer at Montpellier, and Vacarius transplants Roman Law to Oxford. In return Bologna soon receives foreigners into her republic of letters, including at the beginning of the thirteenth century a Frenchman, a Spaniard, and a Bohemian. Let us record their names in presence of the ancient brotherhood of Europe which to-day honours us: Bernardo Dorna, Ponzio di Lerida, and Damaso."

"Thus from Pepo to Irnerius, from Irnerius to the four doctors, from Bulgaro to Alberico of Porta Ravegnana, from Alberico to Bassiano, Azo and Accursius, the lamp of knowledge has been handed down, gleaming with ever brighter lustre; the interpretation of the law, at once austere and refined, steadily progresses, and becomes richer, fuller and precise."

"It was not at this period that students were enslaved to the letter of the law; the opinions of the masters were committed to writing or learned by heart, and were then freely discussed in the schools. And with what industry and fervour! The name of Azo passed into a proverb because he declared that he had no time to be ill except during vacation, and during vacation he died. And how friendly, too, in those days was learning towards public life, in spite of the unworthy desire of some to divorce theory from practice and to deny to the schools the freedom of

the city! A number of glossarists, for example, became magistrates of cities; Jacopo Baldovini went to Genoa, amended the laws, and delivered his opinions armed and mounted on horseback."

* * *

"A striking instance of the intimate relations between the city and the university is the case of Accursius, who, according to tradition, having completed the glossa, presented it to the people, by whom it was accepted as the law of the city. We find, in short, a revival of Roman life. The glossarists had resumed and continued the work of the classical jurists, and had become the new authors and founders of the law of the Empire. The Justinian law henceforth exists, and is in force both in private life and in the forum, solely through the medium of the glossa, as finally arranged and digested by Accursius, whose work becomes the guiding authority rather than the original text. Nor is this great revival of learning in the School of Bologna merely transient. About half a century after the death of Accursius a new era begins with two famous doctors of Bologna, Cinus of Pistola and his pupil Bartolus, who somewhat resemble the ancient Roman Trebatius and his disciple Labeo. The fame of Bartolus, who founded a new school of jurisprudence, is unsurpassed among mediæval jurists; while Cinus, a refined scholar, seems to have been the first apostle of that higher culture or humanism which was destined to culminate in the quasi-Roman genius of Nicolo Machiavelli."

* * *

"From the twelfth century onwards, besides the leading study of law, there also continued to flourish at Bologna those studies which our ancestors worthily called liberal arts and humane letters; and the fame of the University also attracted both teachers and learners of various minor branches of knowledge which contribute to enrich and ennoble human life. And thus was our modern idea of a university developed and defined at Bologna during the thirteenth century."

"Philosophy and philology were specially honoured.

Even the earliest glossarists show their acquaintance with the doctrines of Abelard and the French School. And Frederick II. sent a Latin version of the works of Aristotle and the Arabic commentaries, drawn up by his order, to the doctors of philosophy of Bologna, as 'the most illustrious masters, who knew how to draw from old cisterns living waters for thirsting lips, and who, in reviving the study of ancient works, could wisely refute obsolete dogmas.' To Godfrey, an Englishman, either a teacher or a student at the University, who at all events dedicates his work to venerable Bologna, belongs the credit of reviving classicism, of restoring Latin verse from barbarous rhythm to refined metre, and of exalting Latin prose from degradation to its ancient purity. Bonocompagno, a Florentine, continued this revival of Latinity by introducing the purified language into the secretarial documents of courts and cities; and he was the first Italian of the Renaissance to adapt the style of ancient historians to a narration of the recent trials of the people in their war of independence against Barbarossa.

"In the new languages of society, too, outside the precincts of the University, was thrilling the poetic spirit evolved from the still heated fusion of peoples who had become Roman. With students from joyous Provence and heroic France came minstrels, troubadours, and jesters; and while in the morning the streets resounded with the Latin of the glossa in the mouths of thousands of students, they were enlivened in the evening by the strains of the epic viol and the lyric lute. It is said that the songs which celebrated the prowess of France, awakening the echoes of the grave academic piazza, disturbed the civic magnates in their palaces, and were forbidden by them; but Rambertino, Buvalelli, once consul at Bologna, and five times chief magistrate in the foremost cities of Italy, himself addresses love ballads in the dialect of Provence to the fair ladies of Bologna and Ferrara. They were chivalrous, this Latin population of votaries of the law, and their minds were receptive of all the new ideas of the age. The French ballad singers were succeeded by Italian minstrels, who sang in the piazza of the great banishment of the Ghibellines, a theme

probably more pleasing to the city magnates; the serenade at dawn beneath the balcony, where an eagerly listening Imelda might be stationed, intoned the morning greeting of lovers; while the noisy wranglers of the street corners furnished comic satire with a fruitful theme from real life. And in monasteries and palaces too, the poetry and the prose of the new Latin speech began to dispute the supremacy of the ancient tongue: Fra Guidotto furbished up the old rhetoric of Cicero for the purpose of training public orators; and Guido Guinizzelli, tempering learning with sentiment and popular taste with ancient art, at length gave a national form to vulgar rhymes."

"Meanwhile to philosophers and grammarians were gradually added physicians and masters of the more practical arts. Taddeo Alderotti, a Florentine, performed miraculous cures at the courts of princes and expounded Hippocrates and Galenus in the schools; Mondino de' Luzzi, a Bolognese, taught the anatomy of the human frame; and Pier de' Crescenzi, another Bolognese, restored agriculture to its ancient dignity, being the first since Roman times to treat the subject on a learned and scientific system. There was also a well frequented university of artists presided over by rectors independent of the lawyers, at the time when Dante visited Bologna. Here, under the shadow of the Torre Garisenda, the immortal poet composed love songs and extolled the elegance of the Bolognese conversation and style of writing, and greeted the illustrious doctors of Bologna as masters and fathers, and did not disdain to enter into a contest of Latin verses with the grammarians of Bologna. It was at Bologna, after the death of the poet, that a complete version of his divine poem was first published; and our city also gave birth to his earliest, most reverential, and most learned commentators. About the close of the fourteenth century Benvenuto Rambaldi, of the Romagna, lectured upon Dante in the University, and in commenting upon a passage of melancholy foreboding, exclaimed with prophetic instinct,—'The Roman Curia and the Imperial Court are betraying the liberties of Italy.'"

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"With these words, which indicate a consciousness on the part of the Italians of errors committed and a presentment of consequent evils, the greatest epoch of the independence of Bologna and of her ancient University comes to a close. Yet the future historian of the University must not neglect to bestow on the subsequent and less famous period its well merited meed of praise. Let him relate how observation of natural phenomena first took scientific shape at Bologna; how comparative anatomy and natural history originated here, and how pathological anatomy and hydraulic science were afterwards developed; how at length the ancient Studium was developed by these means into the modern University; and how the professors of the old school terminated with Luigi Galvani, whose discovery revolutionised science, and the scholars of the old stamp with Luigi Zamboni, through whose blood the liberty of Italy was restored."

"With historic repetition, in a new age of marvellous development built upon irreparable ruin, far down a vista of infinite prospects, the University of Bologna, in the strength of her ancient memories may some day resume the civil jurisdiction which she once exercised. If so, she will resume it in a higher, nobler, and purer sense, by developing for the benefit of every nation another portion of the juridical inheritance of ancient Rome. In former times while Italian public life was spontaneously revived in the cities, the tendency of the public law of the Digest was in favour of imperialism and not of liberty; and by this continuing tendency the glossarists were hampered and fettered. Now that Italy, after her long martyrdom, has inaugurated a new era of freedom and nationality, why should she not call upon this age to receive into the new political ideals which she untiringly seeks whatever of Roman Public Law is untainted with imperial despotism? In poetry, in art, in philosophy, Italy has been the means of restoring to Europe the ideas of the serenest antiquity of the Aryan races, ideas of order, harmony, and beauty; and the beneficence of this restoration is far from losing its efficacy. Why should not Italy strive to learn from the same Rome, which understood so gloriously the

art of uniting nations, principles for the guidance and spontaneous federation of modern peoples? And might she not learn them with the aid of this University, so long consecrated to such tasks, both by ancient traditions and by modern needs?"

"Every road leads to Rome, so runs a common proverb of the Latin nations, but for Italy this saying is at once history and poetry, and throbs continually in her bosom. Italy, gratefully mindful of the fact that her fame had grown with that of Rome, was ever willing to go thither by every possible route, in the middle ages by that of law; in the renaissance by that of art; in our own age by that of politics,—to Rome, to which, thanks to her protected independence and her liberty guaranteed by union, she had given the strength of her arms and the vigour of her thoughts; to Rome, though under the regime of imperialism and pontifical theocracy Rome was forgetful of her and the ancient compact. A great man among our fathers, more keenly than any one else, felt this necessity of Italian history; in that lofty and austere intellect, in that heart of Italian hearts, the idea of the Gracchi became modern; Giuseppe Mazzini, more distinctly than any one, saw the glorious vision of the third Rome, sublime, resplendent, no longer aristocratic, or imperial, or pontifical, but Italian. And from secret dens of conspiracy, from school and market place, from prison and scaffold, from battlefield, from parliament, from palace, Italy with the skulls of her beheaded martyrs, with the books of her philosophers and the songs of her poets, with the treaties of diplomacy, with the sword of revolution, and with the artillery of her king, knocked persistently at the gates of Rome until she was enthroned upon the Quirinal and the Capitol. And this sacredness of daring and devotion unheard of in any other history, have rendered her worthy of this: a monarchical republican, a revolutionary monarch, and an obedient dictator, Mazzini, and Victor Emmanuel, and Garibaldi, conspiring with a common object in view."

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Type II. Mediæval Paris University ; mainly ecclesiastical and professorial in spirit ; catholic and encyclopædic in idea.

The evolution of Paris University was more complex. With its later phases we deal elsewhere ; here it is enough to say, as of most institutions, that its mediæval zenith was reached before the official recognition (as a university), just as the ablest doctors are commonly those about to step on the stage of fame. Further, that its internal government was professorial rather than of the student type of Bologna ; and that its chief glory was originally scholastic theology and philosophy, the hellenisation of scripture and papacy under the potent influence of the first reawakening of european learning ; and its spirit ecclesiastical ; though in later centuries Paris evolves into a mighty corporation, organ, and instrument of national purpose. Perhaps of all its many famous sons—though anterior to the formal constitution of the university—Abelard was the foremost (1079–1142). The university ideal was the unification and integration of all culture under the mistress science of theology : for achieving this loftiest of university functions deep homage is due to Paris as the first university since the hellenic and saracenic periods in the West and Near East to compass a truly universal synthesis of knowledge, with epoch-making results on european culture and civilisation.

Spain. The spanish mediæval universities partook more of the italian type in main subjects and organisation ; but as to their foundation were royal, and as to their spirit were more national and ecclesiastical. The mediæval fame of the mighty university of *Salamanca* rested on its civil and canon law. In later centuries spanish theology became the catholic champion ; and amongst the glories of its university record are its encouragement of Copernican astronomy, its faith, expressed in practical manner through the noble Queen

Isabella, in the scientific and religious mission of the italian Columbus ; and finally its courteous and liberal attitude to the learning of women, counting, amongst its teachers of Latin, Dona Beatrix Galindo before the time of our own Elizabeth and her tutor Ascham. In this last trait Spain again reveals a like spirit with its latin sister, Italy.

Worthy of note are the prosperity and university rank bestowed on *Salamanca* (1252–1254, though famous as a centre of learning even before Paris itself) by Alphonso X., himself lawgiver, poet, astronomer and alchemist.

Type III of Mediæval University : England.

Oxford and *Cambridge.* For the English reader the history of our two most great and ancient universities has been already so fully treated that it were both futile and unnecessary to attempt here any epitome of their past glories. Should our study meet with such approval as to merit foreign translation, the duty would then fall to us to make such an attempt.

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Fifth Period of Euro-Asiatic Conflict and Co-operation (*about* 1453–*present time*).

Finally we reach the fifth period of Euro-Asiatic contact of races and cultures, with the fall of Constantinople in 1453, the push of Europe westwards, the opening up of new routes to the Middle and Far East and the discovery of the Americas ; the rebirth of literature, art, and science, and the reformation of Western religion ; from which mighty events, temporal and spiritual, arose, with its tentacles earth-spreading, the modern industrial half-millenium of which we see now the closing world-drama.

To this period, though with roots lying further back,

yet on the whole, belong *Greifswald* (1456), *Freiburg* (1457); *Basel* (1459–1460), (*Bâle*); *Ingolstadt* (1472, later transferred to *Landshut*, 1800; finally to *Munich* 1826); *Tuebingen* (1477); *Wittenberg* (1502; in 1817 united with *Halle*, itself founded 1694).

These, with certain of the schools named previously towards the end of our account of the preceding period, may be regarded, on the whole, as mediating in culture between the former times that were mediæval catholic, and the latter times that were neo-catholic and protestant; their youth forms thus a sub-period of this fifth epoch.

By the middle of the sixteenth century the re-awakening of learning, the renascence of art, the reformation of religion, both protestant and neo-catholic, are in full development in Northern and Western Europe, deriving in the main from italian sources, themselves inspired by hellenic and eastern forces as already briefly stated, in fertile conjunction too with the geographical and cosmic discoveries simultaneously taking place. Thus there arise in rapid succession (here enumerated somewhat out of chronological order with the view of grouping them in a national series), first the famous spanish universities, namely, *Sevilla* (1502); *Santiago* (1504); *Madrid* (1508, refounded 1836); *Granada* (1531); *Manila* (1611), (the University of St. Thomas); and an illustrious period arises in the sixteenth century in the history of the famous Portuguese *Lisbon-Coimbra* University, now finally seated at Coimbra, but first founded under royal auspices at Lisbon, 1288, then a few years later transplanted to Coimbra, and frequently transferred, as generations passed, from the one city to the other: Coimbra, the old capital of Portugal, of which university the most distinguished name is that of the national poet Camoens; its great re-birth in the sixteenth century appears to have been in the main due to the influence upon Portuguese learning and statesmanship of the florentine renascence particularly as represented and incarnated in Lorenzo de' Medici (1448–

1492), and by Politian (1454–1494), himself the pupil at *Florence* of the then most famous Greek scholars Argyropoulos and Kallistos, and in turn Professor of Greek and Latin in Florence and teacher of Reuchlin, Grocyn and Linacre; in this Portuguese University also taught the great Scotch scholar Buchanan (one time tutor to our King James I.).

Then may be enumerated a group of germanic universities.

The following strange intermixture of catholic and protestant schools of learning in germanic countries is an instructive example of one of the three chief obstacles to political and racial unity that have confronted Central Europe time and again: we refer (i) to the two religions, the protestants regarding the german Kaiser as religious head and the catholics the roman Pope; (ii) to the still unassimilated and heavy fraction of slavonic and other non-germanic races; (iii) to the relatively small extent of sea coast bounding Central Europe; this last is not the least weighty of the three, for land divides while sea unites; though the air should form in far future the grand union of all.

Marburg (1527; Protestant); *Königsberg* (1544; immortalised by the philosopher Kant; Protestant); *Dillingen* (1549; disappearing 1804 in the revolutionary chaos; Catholic); *Jena* (1558; Protestant; now has over 2000 students (1914); *Strassburg* (1567–1621; refounded after Franco-German War in 1872 with increasingly rigorous tendency to imperialistic influence); *Würzburg* (1582; twin university in spirit of its foundation with the scotch Edinburgh, though Catholic in religion); *Graz* (1586); *Kiel* (1665; Protestant; originally danish); *Göttingen* (1737; Protestant); *Erlangen* (1743); *Breslau* (1782; new founded 1811).

Many universities founded in the sub-period failed to survive the storms of the French Revolution, proving themselves therein less vital than the other mediæval foundations.

Then retracing a little our time steps, but passing to other countries or peoples:—*Geneva* (1559, with its far-reaching literature, science and theology; refounded as a university in 1873); *Leyden* (1575, among its students or teachers names hard to excel in number, fame and cosmopolitanism); *Edinburgh* (1582, long famed for its philosophical contributions, and perhaps unsurpassed in modern centuries for the distinction and continuity of its tradition of creative activity in the science and art of medicine and hygiene, largely stimulated by the once unhealthy state of the city brought about by overcrowding within defensive walls necessitated by periodical invasions from the south; good thus arising from evil and health from disease). *Amsterdam* (1632; 1876 reorganised). *Helsingfors* University; originally at Abo, founded 1640, refounded about 1828, famous for its high proportion of women students (now nearly 1000 among 3000), thus recreating in this extreme northern town the mediæval tradition of Italy, Spain, and South Germany. *Lund* (Sweden), (1666; with now over 1000 students (1914)). *Modena* (Italy, 1683). *Zagoeb* (Agram), Kroatian University in Hungary (1776; re-organised 1879; now with about 1000 students (1914)). *Buda-Pesth* (the old Tyrnam, 1635; Buda, 1389–1777 (?); Pesth, 1873); *Santiago* (Chili, 1743). *Harvard* (1636–38), Boston, first of United States universities both in time and influence; admitting women in 1879; founded originally as divinity school, now famous also for medicine (human and veterinary) and science, with its world-renowned Agassiz Museum of comparative zoology; also for philosophy and literature, counting Emerson as an alumnus; and with which has recently (1914) been affiliated the world-famous Massachusetts Institute of Technology (founded 1861, opened 1865).

Followed nobly by *Yale* in 1701 (re-organised 1871); by the Presbyterian College of New Jersey, now *Princeton University*, originally founded 1746 with

liberal subscriptions from Britain (among its distinguished members being the divine, Jonathan Edwards, and the U.S. Presidents James Madison and Woodrow Wilson); by *Columbia* (New York; Philadelphia, 1754), embracing not only the usual faculties but Fine Arts, journalism, pharmacy, forestry and agriculture; with about 1000 on its staff, and now become perhaps the largest university in the world; and, having special regard to its wide religious toleration, and rare breadth of studies (including journalism since 1888), we must add *Cornell* University (1868).

To these should be added as universities of world rank in the United States: *Pennsylvania* (Philadelphia), 1740, with over 5000 students and 500 teachers; *Michigan* (Ann Arbor), 1837, with about 6000 students (including 1000 in summer courses); *Wisconsin* (Madison), 1849, wide embracing in study, including military science, with about 5000 students; *Berkeley* (California) 1860, with over 7000 students (of whom over 3000 are women), including about 2000 in holiday courses, embracing an unusual range of studies and associated institutes and colleges, covering the usual faculties and also the social sciences, commerce, architecture, pharmacy, dentistry, agriculture (with university and experimental farms), mining, tropical agriculture, and the famous Lick Observatory at Mount Hamilton; *Illinois* (Urbana), 1867, with over 5000 students; *Johns Hopkins*, 1876; and *Chicago*, 1892. Distinguished also are *Brown University* (Rhode Island, Providence), 1764; and *Columbia and Rolla* (Missouri), 1839, with over 3000 students, of whom 1000 are women. Doubtless others too.

Berlin (1809–1810) under the guidance of the great pair of brothers, William and Alexander von Humboldt; unequalled, perhaps, in educational history for the combined rapidity, variety and quality of its development; but above, perhaps, all universities Berlin has driven to extremes analytic thought and specialism unbalanced by synthesis and commonsense: each

"*Fach*" (branch of study) has its particular philosophy of life but a philosophy injurious and one-sided because ignoring man in his other aspects; the noble humanistic and cosmic spirit of its brother-founders has been sadly neglected this last generation; *Kieff* (1815). *Moscow* (1755); "mother of cities." *Kasan* (1801; opened 1810 (?); world famous in mathematics for the co-discoverer of neo-Euclidian geometry, Lobatschevsky (1793–1856)). *Rio de Janeiro* (Brazil, 1808), with its famous faculty of medicine. *Liège*, 1817, with nearly 3000 students before the war, half of them foreign, thus proving its fame and wide usefulness, recalling the wandering scholar of mediæval times. *Cincinnati* (1819); *Brussels* (Bruxelles), 1834. *Buenos Ayres* (1821), now with powerful faculties and about 5000 students. *St. Petersburg* (Petrograd, 1819).

McGill University, Montreal (charter 1821), active from 1852.

Munich (München, 1826), (with which is incorporated *Ingolstadt* (1472–1800)), world famous for modern science. *London* (1828–1836), with its manifold university schools and colleges; several centuries older is the medical part; while the Inns of Court are still more ancient (therein rivalling indeed, if not surpassing Oxford), forming practically the legal university not of London only but of England and the British Commonweal; the University of London can claim the honour of admitting women to degrees in 1878, first of any school in the United Kingdom.

* * *

Here* it is convenient to extend our view of the ordinary functions of a university to embrace the wider conception gradually returning to education but for many centuries unfortunately lost sight of in the history

* See "University Studies and University Residence," by Patrick Geddes (Sherratt & Hughes, Manchester and London, 1906); to which the author is greatly indebted though he is not in accord with some of its views.

of universities. First as regards the students. Increasingly will it become the duty and privilege of universities to offer their massed culture in fitting proportions and at suitable opportunities—by day and by evening, perhaps increasingly the latter—to all stages of the life of man. The increasing attention now happily devoted to child study, with its already immense stimulus to the welfare of the schools, should expand into correspondingly deep, wide and sympathetic adolescence-study, this again into maturity-study, on to mid-life-study, senescence-study and finally to study of the function, care and treatment of extreme old age; fields, all of these, in which every thinking citizen, woman and man, might co-operate in their respective groups. Charts of life showing its shoals and crises have been constructed at different times in many lands by great master craftsmen in the art of conducting life; the time has come for the consolidation of these into a great map of the life of man comparable with the map of the globe founded on the world voyages of the great navigators.

We noted in the case of Bologna how it was founded by a number of mature individuals (in the main lawyers or beneficed ecclesiastics and generally possessed of adequate means of livelihood) to enable themselves to profit by the services of famous legalists; it is not therefore a matter for real astonishment that the government and lines of development of that university should have proceeded in the self-administered way that actually occurred. There is, however, a strong tendency at certain periods for the ages of the students profiting by a university education to become more and more youthful, particularly as the universities initiate education of a less advanced type (what we now know as secondary or technical) in preparation for the higher studies in the university proper: indeed a substantial amount of age overlap is inevitable and desirable for continuity and contact of teachers and taught in the

lower institute with teachers and taught in the higher.

At the same time this necessary development or extension of the university downwards should, if wisely handled by real spiritual statesmanship, actually contribute to a corresponding extension of the age period of students at the other end.

We may, indeed, anticipate with confidence a certain gradual introduction, already revealing itself to the inquiring observer, of the eastern custom of all periods of life profiting, both as teachers and as students from the well of university culture—a well so magical that every draught withdrawn therefrom adds equal draught thereto.

Therewith the world within the university and the world without may grow with equal step, by periodical interchange, so that the university on its side contributes its alumni to city and state while city and state profit periodically by temporary entrance or residence in the university atmosphere. Thus may be with prudent management achieved two equally important academic objects—the spiritual independence of the university and therewith simultaneous contact, fruitful and fertile, with the common affairs of men in the world without.

However we name them, friar and monk, ecclesiastic and scholar, or statesman and economist, there will always be opportunity for the noble functions both of the practical missionary, citizen from the university, and of the scientific hermit gathering honey within its walls.

There will always, too, be need of that combined type, rare and supremely valuable, great scholar and also great citizen in one, appreciating the profoundly intimate inter-relations of life and learning, who, at those critical times when the university has reached a low ebb, by his own individual passion for science and art stimulates into new blossom the learning of the

university and the life of the city, as so frequently has taken place in the history of all great universities. Perhaps, of modern instances, the most notable was the rise of the Encyclopædic School in France outside the then almost moribund schools of the university; and still more recently the influence of the invaluable scientific amateur, be he a Darwin or a Faraday. Most profoundly transforming upon the schools of all such extra-academic sources has been, in all ages and climes, the highest of all cultural vocations, the vocation of the poet.

So much for student and teacher, the very soul of university life.

There is further the important though subsidiary question of the actual buildings and equipment. Just as every earnest thinker wherever he live is a real and genuine student of the university in its fullest significance, so every library and laboratory wherever they be are part of the university equipment.

For practical purposes, however, the line of administrative definition must be somewhere drawn; though the spirit obtaining should rather err on the side of too wide than of too limited a definition. And so it has been well said* that London, vast and unco-ordinated though it is in the main, contains many potential university cities.

"Thus Kensington, with its museums and its teaching institutions is only one of these; Chelsea with its traditions and its studios, obviously another; why not Battersea with its surrounding population and important industries another; and Hampstead with its large cultivated population, a fourth; Bloomsbury with not only University College, King's College, the School of Economics, the Inns of Court all within hail, but with the world-central British Museum, offers possibilities in many ways incomparable:" Woolwich, also, with its almost unrivalled technical experience of the application

* See footnote, p. 110.

of science to industry of a formidable kind; and Whitechapel with the surrounding parts of the East End led by its university settlements of which Toynbee Hall is the already famous parent, devoting its educational energy to the preparation of so many civil administrators and investigating industrial conditions; building up in fact a university of the humanities for the welfare of the East End; and again Westminster, with its abbeys and its schools (not to speak of other institutions), what an unrivalled centre here also?

"Thus London teems with possibilities for the gradual, yet speedy development of a system of university residence not less vital and far-reaching in its own way than has been that of the great English Universities of Oxford and Cambridge in theirs. All residential halls, history repeatedly shows, are future colleges in embryo, needing but opportunity and gentle encouragement to mature.

So, too, the University of Paris, the same observant writer tells us, is no longer restricted even to the reorganised corporation of that name; it begins more and more to express the immense culture resources of Paris, the Louvre, the Bibliothèque Nationale and the art schools, the museums and learned societies of all kinds, as well as the Sorbonne,* and the schools of medicine and law.

"This synthetic conception of a university with its corresponding ideal of practical aim and organisation, henceforth with its civic as well as its necessarily predominantly academic aspect, involves that in London we should look at the British Museum, the National Gallery and the great institutions of South Kensington, with the world-famous Kew and Zoological Gardens as part of the true University of London in this vital sense; and recognised schools of art and engineering, colleges of music and of science, with all the unattached societies and workers, as truly forming part of that great spiritual

* Founded 1630.

university which must, on pain of atrophy and even death, periodically fulfil the law of growth by transcending and out-growing the definite faculties, corporations, and schools."

We have thus briefly touched upon the sources, outside the conventional meaning of a university, that so repeatedly have given the university itself fresh life, and even in several famous cases initiated wholly new universities. We can here merely emphasise the importance in this connection of the various extra-university societies, academies, and other similar institutions. A noble precedent was set by Catherine the Great in the splendid Russian surveys made by the then Imperial Academy of Sciences.

Of the arts too, both fine and applied, modern universities have been sadly neglectful in the main. And too often in the academic mind, on the one hand, and the industrial mind of commerce, on the other, has the supreme principle been lost sight of, in respect of the indissoluble relationship between art and industry, that in the last resort it is the hand that sets its ideal, model and unattainable standard for the machine; and no skill in the machine-work can ever replace the artistic skill of the hand in this pioneering function. Here rests the unassailable duty and privilege of the human hand in art industries, and therewith of the far reaching importance of the cherishing of art in university culture.

For above both the practical and the æsthetic rises the broadly educational. The ultimate object of all education is the development of the man and the citizen: a craft finds its place in any grade of education primarily for the purpose of livelihood, but supremely to the end of noble and abundant life. The gradual increasing creation of faculties of arts and crafts, or pure and applied art, may therefore be safely forecasted in the future and further evolution of all great universities.

We have also touched but slightly, but by reason of its importance would emphasise, the need of the more

rapid development of university residential life, of which a beginning in London has already been made at Chelsea, itself inspired from the corresponding settlements at Edinburgh and the still older influence of Toynbee Hall; itself in turn stimulating the settlements of New York and Chicago, in the spirit of the divinely inspired "Go thou and do likewise."

* * *

Madison University, U.S. (1849): now with nearly 6000 students.

Manchester (1851): the first provincial university founded in England and Wales (with which is also incorporated the splendidly equipped Municipal School of Technology, whose first principal, J. H. Reynolds, has done so much for technical education); the model of a rapidly developing number of successors throughout the great towns of these two countries; their rise and growth, partly a result of the Oxford and Cambridge University extension movement, itself indirectly but powerfully influenced by the French University extension movements, both in Napoleonic and later times; but mainly owing finance, energy and modern scientific spirit, to the wide local interest of industrial, agricultural and commercial magnates, urban municipalities and rural county councils; in a word, they are regional universities, though for many studies (particularly technical) they attract numerous students throughout the world; thus, Manchester, for chemical and physical science; Liverpool, tropical medicine and civic studies; Leeds, applied chemistry, textile science and surgery; Newcastle, shipbuilding; Sheffield, steel. It is, however, deeply significant of the national tendency of universities in modern times that the state has already acquired substantial control over the whole movement by increasingly large financial subsidies.

To this municipal and regional group belong also *Chicago*, U.S. (1857, reorganised 1892), with about 7000 students; and *Pennsylvania* (founded on initiative

of Benjamin Franklin ; 1740). *Jassy*, Roumania (1860), with now about 1000 students.

Johns Hopkins (Baltimore, 1876).

Girton and *Newnham Colleges* (for women), Cambridge (1869 and 1870–75 respectively).

Lady Margaret Hall (1879) and *Somerville College* (1879), Oxford.

Bucharest (1864), with over 3000 students.

Then comes *Algier*, with its oriental university founded by France (1879 ; reorganised 1899).

Warsaw (1869), with over 2000 students.

Bryn Mawr College (for women), Pennsylvania (1885).

Tokyo (1868 ; reorganised as Imperial University, 1886), with over 5000 students.

Sophia (Bulgaria ; 1888), now with over 2000 students (philology, mathematics and physics).

Tomsk, W. Siberia (1888): a city of incalculable promise, cynosured and centred in the grand regional and medial belt of Siberia, a potential world granary unsurpassed in extent, capable therefore of developing a university agricultural school of united science and art to its own great glory and world-wide use ; perchance, too, growing therefrom a complementary spiritual faculty that has so often both influenced and been influenced by agricultural activities, a new Mount Athos monastery, Benedictine abbey, Confucian temple or Muhammadan mosque, and yet also a modern equipped university in one.

Pekin (1901), reorganised from an ancient literary foundation ; now in course of revolution.

Constantinople (1901 ; reorganised 1908).

Belgrade (1905 ; with over 1000 students already).

Manila, U.S. University of Philippines, 1909, now with over 600 students.

Lisbon (1910; already rapidly progressing in medicine and science).

Kyoto (1899) ; reorganised in Kyushu (1911) ; and

embracing also a medical college (1903) and engineering college (1910). The Keiogijuku University, founded 1858 by Fukuzava, the Sage of Mita.

* * *

General Observations on Universities.

Viewed in the light of eternity the story of universities appears to us the voyage of an unending fleet of stately ships sailing with manifold vicissitudes yet with faith sublime through seas unbounded to a haven that is never reached. To waves within waves, of infinite complexity, that fleet is subject; some seem to favour the passage; some formidably to obstruct; some even to reverse it; while at the extremes are waves so large and waves so small as to fall beyond the discernment of human skill.

Thus do we find waves or periodical forces from without, most varied in kind and intensity, simultaneously and perpetually influencing the fortunes of universities for weal and for woe; whether these be personalities, tendencies or events; religious, racial, dynastic, continental, national, regional or municipal; or again, agricultural, industrial, maritime, commercial or financial; or finally philosophical, scientific, literary, or artistic.

With these external forces have finally to be considered the equally potent influences exerted by the periodical rise, within the universities themselves, of great and impressive personalties and characters, endowed with the inspiration of lofty genius, so fruitful as to recreate ultimately not only the fortunes of their institutions, but even the prevalent outlook of the human race. The names of such geniuses from all ages and all climes leap vividly to the memory of all who have fed with grateful heart upon the fruits of the imperishable tree of knowledge, nobly cultivated by these our great common spiritual ancestors.

On a review of the universities, so far as their story is known, we find that, alike in East and in West, down to the end of mediæval times in Europe and the corresponding period in the East (near, middle and far), the schools, though distinctly coloured by civic and regional needs and qualities, and still more by national temperament, yet on the whole were substantially characterised by a common spirit whose catholicity, though not world-wide, yet embraced the corresponding continent and the prevalent religious, philosophic and artistic atmosphere of its peoples.

In the East this includes that uniquely wide tolerance of belief representative of the philosophy of India, the ethics of China, and the art of Japan; to which fruitful trinity of mighty human achievement was later added the wonderfully high receptive and distributing capacity of Semitic (Muhammadan and Judaic) culture as professed and practised by its best exponents (ranging over the whole known world from Spain to China), to whom the world's debt is correspondingly vast for the preservation, recovery and enrichment of the older cultures both of East and West; and if it were permissible for a western thinker of Christian origin to distinguish between such fruitful achievements, it would be tempting to express the conviction that, upon equal and fair consideration of duration of time, extent of knowledge, and tolerance of opinion, to Jewish culture should be awarded the palm for the indispensable mediatorial *rôle* between East and West.

* * *

Spirit of Modern Western Universities.

Upon the transformation of the mediæval type of Christianity in Europe and the entry of the protestant form, the ideal and idea of university catholicity undergo

striking transformations, with momentous and far-reaching consequences to Europe and the rest of the world. Of these consequences, the latest and the most significant fruit has been in great part the world war, the climax of anarchy of thought among the natural leaders of culture and civilisation in the West.

The world-wide rebirth of religion inaugurating the present era about two thousand five hundred years ago may in its profounder aspects be interpreted as one of the great periodical efforts of the world soul to restore to public government the most ancient of all types of rule, the simultaneous distinction and co-operation of spiritual power and of temporal power naturally obtaining in the simple human family of child, mother and father.

The Natural Balance of Janus and Vesta.

The substantial and reasonable equality of the father and the mother, and hence of male and female in the government of the simple human family, is the first condition of progress and stability in all types of society, rural, urban, regional, national, international, occupational or institutional. Wherever and whenever either sex exalts itself to a predominant position of partnership then inevitably follows the logical sequel, pride, despotism, slavery, rebellion, anarchy, and war. The particular type of forces producing this series varies according as the sex is male or female. If male, as in the present and closing world era, hunger becomes gluttony, love becomes lust, ambition becomes megalomania, power becomes pride, compassion brutality, learning vanity, and possession avarice, whence babes become future fodder for cannon or beasts of burden. This sequel is a massive resultant, accumulating through the centuries ; and is independent of the minor facts of the inequalities of nature, here the individual male stronger, there the female : for these inequalities are exaggerated

by the large over-ruling condition of the spirit of the era, patriarchal or matriarchal as the fact may be.

Now in characteristic essence, as Comte and a long line of prophets before him have urged, the rule of the mother is spiritual; the rule of the father is temporal. *Of spiritual power and of power temporal, it is in their very distinctness and equality that lies the opportunity of healthy human emulation and noble human co-operation. The supremacy of either over the other; the confusion of the one with the other in idea and ideal, in purpose and in practice; above all the identification of the two and their union in one person or body; these are the conditions, precedent, necessary, and sufficient to despotism, tyranny, anarchy, revolution and conflict, whatsoever sphere of human activity we consider in which both powers obtain.*

There is accumulating evidence that a multi-millenial age of matriarchal rule, subordinating the temporal power to the spiritual, ended thus in anarchy and conflict. Blindness to the law depriving mankind of the spiritual power of transcending it, this extreme was inevitably followed under the natural law of action and reaction, by a multi-millenial age of patriarchal rule, in its turn subordinating the spiritual power to the temporal. Of this last the Egyptian Pharaohs form the characteristic type and the last two thousand five hundred years form the closing era.

With slow and painful steps the whole human race is becoming conscious that one indispensable condition of its welfare is the progressive balance and balanced progress of these two powers, distinctly conceived in thought and co-operant in practice, not only at the summit of power but at every stage of the complex hierarchy of rule, penetrant and inspiring throughout.

Chief of all the historical factors that conduced to the inauguration of this present era closing the patriarchal age, has been, though sometimes slumbering yet generally awake and valiant, the deeply founded conviction both of Hellenic and Roman civilisation—and

particularly of the latter in its palmiest days—as to the soundness of this supreme principle of the balanced co-operation of church-craft and of state-craft in the progressive evolution of the common weal, imaged in profoundest interpretation as a magnified human family in which the mother and the father are the respective spiritual and temporal chiefs. The position of Delphi and of Delos in the Hellenic world, and the evolution of the Pontifex Maximus and the homely Lares and Penates (of which last the ancient Vesta was the chief) in the Roman, are potent signs and symbols of this northern Mediterranean characteristic.

With the resurgence of Eastern imperialism first in Persia,* then in Hellas, and later still in Rome, the principle for a time dissolves, morally ruining the magnificent genius of Alexander the Great as shown by his restoration of the Eastern apotheosis of the ruler in the face of strenuous opposition from his sane Hellenic advisers, and powerfully contributing in spirit to the ultimate disruption of Hellenic sway.

The same story repeats itself with the equal genius of Cæsar and the transformation of the decaying Roman common-weal, balanced as to temporal and spiritual powers at every point and part in its greatest days—a massively moving balance so well symbolised by Janus and Vesta, co-equal in dignity and influence—into the Roman Empire with its Pharaohic identification of the temporal and spiritual powers, prototype of the great and absolute state Leviathan of Hobbes, a monster of despotism whose terrible logic has all too powerfully reacted on the souls of modern statesmen.

These preponderant because invisible waves of patriarchal spirit, first liquefying into custom, and then crystallising into law, were later to be spent in vain

* If Hellas owed this *damnosa hæreditas* to Persia, on the other hand its debts to Persia of a nobler kind appear to have been greatly underestimated by Western historians, too much influenced by the story of the victor in the conquest.

resistance to the rebirth of the still more ancient spirit as to the distinction of the spiritual and temporal in the new religion of Christianity.

Still later the isolated patriarchal ideal was to be reinforced by contact with Islamism, again uniting both powers in one ruler, though there are now increasing signs that the Arabic, Indian, Persian and Turanian Muhammadan genius is gradually feeling its way to a separation of these two powers. If these signs correspond to any substantial ideal in Muhammadan countries, the day may come when Mecca and its Grand Shereef * may occupy a spiritual throne analogous to the Buddhistic Grand Lama of Thibet and the Catholic Pope of Rome.†

This periodical struggle again asserts itself in mediæval times in Europe as between Pope and Emperor, with its story so widely known, at least to citizens of the west.

Throughout these religious, dynastic and state struggles runs strongly, tenaciously, and with steadily increasing influence the development of industry, agriculture, and commerce with their ramified organisation into guilds, colleges, and societies; here briefly mentioned but of import profoundly far-reaching and deep.

The influence of all these mighty currents may be readily traced in the rise, development and decay of mediæval universities, alike in the circumstances of their external relations (whether to Pope, Emperor, King or Municipality) or of their relations internal—(as in the very name of "*universitas*," a group of people constituted into a "*corporation*," an addition to the old merchant and craft "guilds")—whether to teachers or to students, to studies or to degrees.

* * *

* Recent events give practical point to this observation.

† In 1870 Royal Italian troops entered Papal Rome and the Franco-German War began. Which event was the more epochal?

EUROPEAN UNIVERSITIES become in general dominantly sectarian, national, and dynastic after the REFORMATION.

Imperishable were the beneficial fruits of the Renascence and Reformation, as a necessary reaction to religious and civil corruption.

Yet there is a deadly reverse side. With the relative submergence of Roman catholicism and the entrance of other important factors culminating in the Renascence and Reformation, the spiritual power in protestant countries again becomes subordinated to the temporal, and the terrible Leviathan of Hobbes arises in its twofold might. In the end these powers merge together in the protestant state governments, whether relatively absolute as with some, or relatively constitutional as with others.

The resultant situation is best represented by the recrudescence of the imperial conception of later Rome, wherein the Emperor unites permanently in his official self both the temporal dictatorship (anciently of strict and occasional limitation, as with Cincinnatus and Fabius) and the spiritual (Pontifex Maximus) Chief Priesthood with its vital and characteristic functions of ceremonial leadership and wide powers of judicial arbitration, for the Pontifex was primitively a "*builder of bridges*" real over rivers, so facilitating neighbourly relations, and a "*builder of bridges*" spiritual between enemies.

In modern times this union may take place either in the "*person*" of the constitutional government of the state, or of the Kaiser (or modern Cæsar) as the personal and supreme representative of the state.

The ultimate consequences to mankind of this union of powers of church and state in one body or person are substantially identical in either case, though these consequences fruit more rapidly in the latter, with less total evil in the end.

The grave difficulties and dissensions whether of labour and capital, of church and state, of conservative and radical as to two chambers of government or as to one, of socialist and imperialist, of nation with nation, of dynasty with dynasty, are the symptomatic and periodical but dimly understood efforts of humanity to restore a reasonable distinction and balance of those spiritual and temporal powers broken down at the reformation, and subsequently identified and merged together throughout the larger part of Europe.

Henry VIII. and Cromwell in England, Richelieu, Louis XIV. and Napoleon in France, the Hohenzollern dynasty in Prussia and Germany are all striking but characteristic modern instances of the exploitation of the spiritual power of universities in the temporal interests of the state obtaining in general during the last three or four hundred years. The universities in their humanistic studies have thus become mainly sectarian, national or state instruments.

Perhaps the most striking single illustration of this tendency was the steadfast refusal of the great Erasmus to accept the offers repeatedly and urgently made to him to occupy a professorial chair at the universities ; his experience and far-sighted genius taught him truly such a position was no longer catholic, but national and sectarian.

Though the wave of inherent catholicity of knowledge has for a time become subordinated, yet from the very nature of learning its catholicity can never die but must continue to exercise great influence. In modern centuries this catholicity, while exhibiting itself brilliantly yet fitfully in the humanities, in the main is revealed in the colossal growth of material science shared by and common to all nations and their universities. Yet this concentration on material science, though in its origins and for some considerable time due in the main to the inherently catholic and inquiring instinct and spirit of man, yet subsequently and increasingly was

encouraged by the state, first subconsciously then consciously, as a powerful means of national strategy in the competition and jealousy of modern nations. Germany, above all, has recognised its power in this direction. As regards religious belief this showed itself mainly in agnosticism, a widespread negation of belief; later in the more negative aspects of the Comtian religion of humanity; while the present world crisis shows signs of a wide rebirth of positive belief in the supernatural.

The resultant effects on industry, commerce and state-craft, unbalanced by equal growth in independent church-craft, have been already mentioned.

The periodical emergence and submergence of temporal and spiritual factors in the evolution of universities is clearly revealed in the past century of French and German university organisation and work.

Napoleon reorganised the old and decaying separated French universities after the Revolution into one great University of France, now deliberately and clearly conceived as a compact and centralised organ and instrument of state politics with all its advantages and disadvantages. In direct challenge to this conception, those two great scholar brothers, William and Alexander von Humboldt, humanist and naturalist respectively, inspired the new spirit of the German universities by their co-operation in the foundation of Berlin University, a spirit anti-chauvinistic and essentially catholic.

The shock of defeat in 1870–71 brought the French to a critical reconsideration of the Napoleonic ideal, with the result, first, of the rapid importation of modern German methods and erudition in the direction of thoroughness of detail and reverence for fact, later of a development more instinctively national in the direction of sympathetic penetration, imaginative synthesis and pellucid presentation.

Precisely opposite was the trend in Germany. At the foundation of *Berlin* underlying the noble Humboldtian catholicity (incorporated in the *Lehrfreiheit* of

Prussia) lay national and dynastic ambitions of the Hohenzollerns. The fruits of the victory of 1870–71 at length submerged the former spirit and gave wide scope and field to the latter, with this startling result: deliberate state use for purely national purposes of one of the finest and most powerful spiritual organisations the world has ever seen. Famous professors of universal history become royal state historiographers, are subtly inoculated with national bias and at length interpret world history in terms of national or state ambitions. In a word history becomes for a period chauvinistic; a spirit which is certainly not confined to German universities and German schools, but is so widely prevalent from East to West, that, as we have already stated, it is one of the mightiest factors that have persistently contributed to the present world crisis. Mommsen's modern apotheosis of Julius Cæsar in his magnificent epic of Roman history is at bottom the identical instinct that impelled men in ancient times to the deification of the Roman emperors, "Divus Cæsar Imperator," whom the people regarded as the successive incarnations of itself in its united power and majesty. On Leonardo da Vinci's monumental colossus to Francesco Sforza was inscribed "Ecce Deus!" In modern times this deification attaches itself to the people's will as centred in the "STATE" (the Leviathan absolute of Hobbes) in comparison with which the individual citizen is as dust. To deify any element of the great circle—binding individual to family, family to city, city to state, state to humanity, the dead to the living and the living to the unborn babe—is to fall into the sin of ancient idolatry with the inevitable Nemesis thereof. The Hebraic commandment still runs true: "*Thou shalt have no idols!*"

We pray thee reader, in thy most solemn moments, in harmony with ancient wisdom and usage, to reserve the capitals of apotheosis for one name alone—GOD.

CHAPTER X*

THE NEW HUMANIST

Now the leaders of the people hardened their hearts, and blinded their eyes, and did have contempt for the cunning of the hands of their people. And for the sins they did and the people with them, the Lord did send death and destruction amongst them.

Then cried they in prayer unto the Lord for help. And the Lord said unto them, "This must ye do. Cherish ye again the fire that shall melt the frozen hardness of your hearts by love and pity unto all the peoples.

"And search ye again into the great works that I have created around you for the joy of your eyes and the light of your understanding.

"And in the sweat of your brows get ye again the cunning of your own hands, then shall ye not despise the work of the people; but in wisdom and peace shall ye lead them all your days."

ZOROASTRIAN MYTH.

WE must candidly admit the ultimately deleterious effects of the Reformation, Protestant and neo-Catholic alike, in respect of their modern influence on western universities as exercised by perhaps most states, in so far as this consisted of their exploitation by financial control in the interests of international jealousy and rivalry and the baser forms of patriotism. Striking single instances are not far to seek; as when Frederick the Great looked to the university professors of history to interpret documents in such a way as to give the appearance of legal and historical justification of his conquests, or, earlier still, when "le roi soleil" of France appointed, with all

* This essay was written in 1910 and the greater part of it circulated privately among a large number of practical educationists from whose criticism it benefited greatly. It was published in *The Journal of Education* for Jan. 1916 and, with some changes, is here reproduced by kind permission of F. Storr, Esq., editor of that Journal.

due official solemnity, a commission of ardent courtiers and patriots to investigate his historical title to Alsace-Lorraine precedent to its annexation, or again, looking at home, when Henry VIII. of England cynically exploited the universities as mere tools of policy in the spirit of Roman or Byzantine imperialism. "The conception of an ultimate State Sovereignty entered England with the Reformation. Its zenith is the year 1539, when Parliament ascribed to Henry VIII.'s proclamations the force of law, and, by the Act of the Six Articles, took the very ark of the religious idea itself into the sphere of its regulation."* Yet it is time to consider also the great benefits that flowed from this same wonderful movement of combined reformation and renascence in this same field of education.

Part I. The Educational Ideals of the Renascence.

The resulting educational rebirth in Europe at the close of the mediæval period embodied, we take it, two essential ideals.

One was fundamental, laying down the perpetual basis of culture: the other was supreme, expressing belief in the end and object of education.

Fundamentally—it was held that the sources and instruments of culture were three—Nature,† the inexhaustible environment of man; the Artistic Crafts as represented by classic architecture, sculpture, and ornamentation, and later by painting and the minor artistic crafts; and Language, whether acted or spoken as drama and oratory, sung and recited as music and poetry,

The head and hand and heart of man a trinity in unity.

* Ernest Barker in *The Political Quarterly*, Feb. 1915, p. 105.

† The Renascence was fascinated by the new astronomy, by physics, optics, mechanics, hydraulics and so forth; also by geography and travel to a degree and extent even our Polar discoveries but faintly recall. Even as late as Milton we find in "Paradise Lost" the bright light and romance of astronomy and geography; indeed, as with Homer, Æschylus, Lucretius and Dante, the great cosmic spirit dominates Milton's masterpiece.

written and read as literature. In these three fields, a trinity in unity, alone was found respective scope for all the powers of man in head and hand and heart.

Supremely—that the object of education was the complete flowering of the pupil as an individuality. The supreme object of educational interest was the personality of the pupil. From this time onwards the genuine teacher must be a *humanist.*

These principles are in their spirit themselves imperishable, for all truth is eternal. But they await their reincarnation in varied forms, from period to period, to appear again in the sight of man. In hoary Zoroastrianism were they reborn; again in ancient Hellenism; in fresh forms again at the Renascence; and now once more they knock at the gates of man, placed at his service.

Such vital conceptions could now develop further only by generous enrichment on one side, by prudent limitation on another.

The enrichment has been the gradual contribution or task of modern nationality, modern science and modern industry, each of them in their evolution to a height and extent unprecedented in the records of human history.

The new citizen.

To modern nationality is owing the growing enrichment and broadening of the individualistic educational ideal of the Renascence by the fertile conception of citizenship in its awakening to the problems of civic, regional, and national life.

The rebirth of wonder.

To modern science education owes its increasing passion, by placid inquiry or by torturing inquisition, for experimental research into all forms of nature, around man or within him, not only for application but for its own indwelling interest. But the deepening of spiritual faith will create in man a new rebirth of wonder.

From modern industry education is destined in rapidly increasing measure to enrich its domain by the development and incorporation of the perhaps two grandest elements of commerce, the noble instinct of workmanship in the richly manifold industrial activities of the masses and the public spirit of organisation in their natural leaders whether in associations of employers or unions of employed together destined to evolve into great guilds of industry, national, international, and interstate; and these not primarily as means of higher livelihood, but as veritable sources and instruments of new types of culture for the ennobling of human life.

The spiritualisation of workmanship in rule and service.

These vast forces, thus briefly outlined, have successively given to the school and its pupils—and are certain to give in increasing intensity and fullness—primarily citizenship, literature, history, music, art and drama; secondly, mathematics, geography, physical, chemical and biological science and hygiene; finally and latest, the arts and crafts (male and female),* and though still in a rudimentary stage in most perhaps of the world's elementary schools, the spirit of organisation and capacity to govern as well as to be governed. This last element—of all, the most difficult of attainment—implies the development of corporate institutions in the elementary school by which some share in the government is devolved upon the pupils.

As for the limitation of renascence conceptions, we now recognise the socialised discipline of the "group" (esprit-de-corps or group-loyalty) both as an indispensable condition of self-government and a healthy limitation to the over exuberance of individualism. It is also essential to remember that the administrative spirit in the economic sphere

Group loyalty.

* Each art and craft has a male and female aspect, complementary not antagonistic, corresponding to the equal and different powers of man and woman.

where profit is so rooted an element must undergo a deep transformation to fertilise the predominantly spiritual field of education, whether primary, technical, secondary or tertiary (university).

Man not money the end of education.

Though thus sharply and broadly outlined, all these elements, we are fully aware, are necessarily commingled; act and react upon each other, and need, for their proper development, co-ordinating and creative activity both in teacher and pupil. No system is, of course, adequate to reality; but for the purpose of a practical polity we propose to systematise in form, both elastic and plastic, the ideas thus broadly sketched above, imperfect approximation as the attempt must be, as a procedure preferable to the generally existing chaos and want of organic unity in the curricula of school, college and university.

We think it, however, indispensable at this moment of educational history to lay special emphasis upon the broad truth underlying our analysis, and this with a view to reaching some organic unity.

In a word, the ultimate sources of culture, distinct though not isolated, are now increasingly recognised to be three: *humanity itself* (*both as individual and as citizen*), *the occupations of humanity, and nature; each of the three inexhaustible in interest.*

The three inexhaustible founts of culture.

The instruments of culture are correspondingly three:—language (including music and literature of all kinds), the "arts and crafts," and the natural sciences. Of these three, nature study ministers to the contemplative soul of man: the arts and crafts to his active or creative soul; while language is at once the supreme synthetic * instrument of his world-wide contemplation and the synergic * organ of his world-wide activities, thus

The instruments of culture and their functions.

* Deliberately do we use words that emphasise the spirit of union and co-operation in these times of disunion and conflict. To analysis must

preserving a healthy and happy balance between income and expenditure, rest and activity, leisure and work, recreation and creation.

The Folk-Humanist, the Craft-Humanist and the Nature-Humanist.

But whichever be the source or instrument of culture used by the teacher, the educational experience of the race demands that the supreme object of interest shall be the pupil, both as individual and as citizen—not scholarship, nor science, nor skill. In this final sense of the word, the teacher must from henceforth be a *Humanist* to develop in his pupils their complete humanity. Round this broad, common and central truth alone, we believe, can educational theory and practice find and maintain organic unity.

Life abundant the aim of education.

Of teachers, there are, therefore, three fundamental types, rarely, if ever, equally balanced in one personality: the Language or Folk-Humanist, the Nature-Humanist, and the Craft-Humanist. And by this we imply that a teacher should be first a humanist; then scholar, naturalist or craftsman.

The noble life abundant of the pupil, not the subject, should be the teacher's first and last consideration.

The Dawn of a Second Renascence in Education.

We turn for a moment from the beneficial and positive aspects of the central ideal common to the Renascence and the Reformation—the supremacy of individuality—to its obverse side.

be added more and more its synthesis, to individual energy its co-operant synergy. The adjective synergic, though common in French thought, has nearly passed into oblivion in English; yet it embodies that fine conception of biology—the combined healthy action of every organ of the body (synergy).

The disintegration of the old hierarchical authority in church and state; the rapid dissolution of the mediæval organism of culture into a vast variety of relatively isolated, rich scientific specialisms; and in England the industrial revolution (now world spreading in its tentacles) based on the inventions of materialistic science—the machine process—with gradual disappearance of the complete village community and its concomitant family disintegration in giant town and dwindling village: all these symptoms of anarchy were also the accompaniments of the vast energies liberated at the Renascence and Reformation in the individual untrammelled, by the passing of Mediævalism, from its salutary bonds of authority that gave wings to the speculative soul and its servile bonds of despotism that were a prison to the body.

Anarchy the fruit of individualistic reaction against mediæval authority and despotism.

But the opening of this twentieth century exhibits clearly a new renascence, at once masked and also stimulated by the present world-crisis, towards whose development we believe the contribution of education will be of considerable ultimate magnitude; and its broad lines may even now, we think, be traced.

Amongst these contributions must be the solidarity of education from kindergarten to university, symbolised by professional unity; the creation of new and fruitful ideals; the organic co-ordination of science, art and citizenship, and, therefore, of the subjects of the school curriculum; and the development of the talents of children in their respective groups with a view to their full blossoming alike as individuals, workers and citizens —citizens of their regional home, citizens of their nation, citizens of Europe, citizens of the world. For every subject that attains not to the spirit and prestige of humanism sinks permanently to the banausic.*

* A friend warns us that this comprehensive old word is nearly obsolete, but we can find no other that embraces the united ideas of the mechanically futile, the illiberal and the tasteless.

The Evolution of the Position of Subjects and Teacher in the School Curriculum.

As the life of the schools, though partly a cause, has yet been in the past mainly a reflection of the rest of the national life, our brief historical retrospect may serve to explain the process traversed in modern times as regards object, method, and organisation by each essentially new subject as it enters into the school curriculum, and the corresponding position of the teacher in charge of it. Whether we take mathematics (as arithmetic, algebra, geometry, etc.), science (physics, chemistry, biology, hygiene, etc.), music, drawing, modelling, woodwork, metal work, or domestic economy, we find, on careful inquiry, broadly speaking, and remembering that some of the stages have been traversed in secondary, others in primary schools, that the subject has passed or is passing through the following successive stages, *utilitarian*, *logical*, and *genetic*:—

(1) The *utilitarian* (or practical) order of development, forced upon the schools by external pressure. The appropriate teachers being lacking, the method of presentment is necessarily empirical, as used in practical application outside the "schools"; there is, however, a solid advantage in that the subject rests on a concrete basis of brute fact. In this stage the pupil is subordinated to the material of study.

Use and abuse of utilitarian motives.

(2) The *logical* (or systematic) order of development, as perfected by the universities (or higher institutes). The method is here predominantly abstract and consequently premature for the schools; but there is the solid advantage that, having been transformed in the hands of a professional teacher, the subject is rationalised and gains recognition as of genuinely cultural value. In this stage the pupil is subordinated to the method of study.

Use and abuse of system.

(3) The *genetic* (alike psychological and social)

order of development; psychological, as in harmony with the order of development of the nature of the individual pupil, and social as in harmony with the spirit of the order of the development of the subject by the human race. Adequately and broadly interpreted these two orders (social and psychological) are, we believe, identical, being the ontogenetic and parallel phylogenetic orders. In this final stage, the material and method each becomes truly subordinated to the personality of the pupils, in their individual and social blossoming. But this abiding truth emerges: that the pupil must humbly serve the subject ere he can grow to mastery and noble love of it, so that the third and final order must itself embrace the other two whilst also transcending them.

Education must unite the genetic, systematic and utilitarian.

Corresponding are the three stages of the position of the subject in the curriculum :—

(1) Regarded by the schools as relatively unimportant, and often placed outside the regular timetable.

(2) Recognised as an essentially important element in education; often given, in consequence, an undue share of time and attention; and figuring on the timetable and treated as a relatively isolated and independent cultural entity.

(3) Duly co-ordinated with other subjects naturally allied to it; finally allotted its legitimate share of time and attention and merged, as a branch, into one of a few fundamental groups in a true educational and organic unity, created by manifold forces, external even more than internal * to the school, in harmony with the time-spirit.

We have traced the process baldly and in sharp stages. In reality there is continuity throughout. The passage from initial anarchy to final organic unity

* Such as the continuous pressure of economy of school time.

appears to be repeated at each large period of educational history.

It may be added that the third and final stage (psychological, social, and organic) does not appear to have been fully realised in the present period of educational development by any one subject in the curriculum —least of all by the more modern importations, mathematics, science, craft-work, hygiene and physical education.* The literary (or folk) subjects, with their obvious tendency to song, festival, and drama, are the present pioneers of the renascence of all subjects that is dawning.

Multiform experiment indispensable.

Cautious but deliberate experiment in many directions in the schools is indispensable; and further research into the profound significance of the "Culture-Epoch" principle should be encouraged in the universities and training colleges.

Importance of "culture-epoch" idea.

Finally, there are the successive stages of position traversed by the teacher of the subject :—

(1) An external or part-time visiting teacher, in general poorly qualified and paid.

(2) A member of the staff, but with inferior prestige, status, and salary.

(3) A member of the staff, fully qualified, and either co-equal with the other teachers, in the upper forms of secondary schools. Or, in primary schools and the lower forms of secondary schools, the subject is finally held to be an essential element in the equipment of the ordinary teacher and here alone reaches its highest influence.

* Several of these are still so rudimentary as to be predominantly in the first or second stages. We may add, in view of our final synthesis, that hygiene and physical education will reach their full development and effectiveness when merged according to their three fundamental aspects under Folk Culture, Nature Culture and Craft Culture.

The "General" teacher and the Specialist. Two extremes.

But to the development of this second alternative of the final stage—the demand upon the ordinary teacher to be able to take any subject of the curriculum—there inevitably arises a practical limit.

Equal need of developing both instinct of unity and instinct of variety in every pupil and every teacher.

The natural desire for an all-round education and the constant pressure of economic considerations have produced the "general" teacher, while the increasing growth of human knowledge and activity has simultaneously produced the "specialist" teacher, with the corresponding difficulties in the organisation of the school work.

The final outcome at the present time is increasing anarchy of school studies in many directions. No longer in any school does a type of really "general" teacher now exist in the old sense of competency to teach every subject to all ages of the pupil; but the specialists grow apace. Time-tables are becoming rapidly congested, and the form system is breaking down in some schools, while in others its substantial retention is maintained only at the cost of a natural reactionary tendency to throw overboard some of the modern subjects and return to the older, simpler, and unified types of curricula.

Clearly, some constructive policy is urgently called for. This can only be permanently successful if it is a reasonably sound co-ordination of the main tendencies of the time-spirit. The consequent emergence of these largely sub-conscious tendencies into the daylight of full consciousness will greatly expedite the growth of the renascence whose beginnings we can already detect. It is a historical process, we take it, in harmony with the higher characteristic of normal human action, by which a peaceful and gradual evolution, at the end of a

period of educational disintegration, renders unnecessary the reactionary violence of revolution.

The present conflict of studies in the schools—well symbolised by the numerous publications constantly produced on the educational place of the various isolated subjects—is the immediate effect of the two foregoing prevalent extremes, the demand for a *general* teacher competent to take each of a great variety of mainly isolated studies, and, to counterbalance the superficial learning thus inevitably and increasingly produced, the simultaneous counter-demand for teachers who are merely *specialists* in one isolated subject or a small isolated group of subjects—teachers, therefore, commonly apt to miss the breadth and richness of humanism.

A precisely similar social and educational problem confronts the world in all its spheres—religious, political, economic, professional, and so forth: the evolution of a golden mean between shallow sciolism and narrow specialism, the final results of the disintegration produced by the excessive modern analytical thought.

On the other hand, in any reconstructive development, pioneers would be prudent to bear ever in mind that the demand for the "general" teacher is an expression of humanity's undying instinct of the oneness of its universe; and the demand for the "specialist" teacher, an expression of its complementary instinct of the inexhaustible variety of that same universe.

Each instinct and demand must, therefore, be satisfied in reasonable and substantial measure; deeply regarded they are not antagonistic but complementary; co-operating towards the greater variety and abundance, harmony and unity of life.

General Culture has many types.

But viewed in separation these two extremes are gradually becoming recognised as prejudicial to true culture; and a sensible, practicable mean between the

two extremes must gradually be realised—a mean that embodies a reasonable measure both of breadth and depth.

This, we venture to submit, can only be by the recognition of varying types of true, general culture, partly based upon the varying types of abilities found to be naturally existent in human beings, and partly based upon the eternal and primal sources of culture itself.

It is clear that the underlying principle must be practically discovered and applied to the problems of the education and training of the teacher before the solution can substantially affect the pupil and, therefore, the future citizen and his world.

The broad outlines of the solution of the more immediate problem we have already attempted to give in the preceding pages. They consist in the cautious and experimental application of the fundamental ideas and ideals underlying our conviction :—

(1) That all teachers must be Humanists, to whom the individual and social blossoming of the pupil is the supreme object of their activity ;

(2) that there are three fundamental sources and instruments of culture—Language (or Folk), Nature, and Crafts (the fundamental and primitive occupations of the folk) ;

(3) that every teacher should reach a reasonable standard of culture in each of the three ;

(4) finally that every teacher should have the opportunity of developing broadly, *as a humanist*, any special talent, whether it be as Language (or Folk) Humanist, Nature Humanist, or Craft Humanist.

Broadly speaking, the too long repressed varieties of ability in the pupils can only become developed by much fuller scope for the exercise of the varieties of ability in the teachers ; and the large numbers, apart from other considerations, indicate the urgent need for *grouping* of such abilities in a few broad types.

Organisation and training for occupations will exert additional pressure in this direction.

The practical application of the foregoing must necessarily be experimental and tentative.* If successful, its effect upon all kinds of training (as well as that of craft teachers as the newer types) would probably be ultimately profound.

Synthesis of School Studies Foreshadowed.

With a view to show more clearly the position, both in scope and limitations, we think craft teaching may fitly come to occupy in the schools, we sketch, as briefly as may be, the probable ultimate, though perhaps far distant, consequences of the gradual realisation of our ideals, which, we repeat, we believe to be merely the making explicit of the varying dominant tendencies already in existence.

Complete living.

Parallel and co-operating with school transformation would, we assume, come about political, social and industrial re-organisation in the great world, the dominant note of which we take to be the gradual organisation of broad paths to the great groups of allied occupations with due scholastic and technical certification, a revival of the ancient guild spirit of group cohesion, but consistent with the Open Sesame of modern centuries, itself a return, in the industrial world, of the spirit of that broad catholic highway to the highest professional and spiritual posts in mediæval times, when degrees were European and craftsmanship was cosmopolitan. The conservative instinct of man will ensure the group solidarity; the creative instinct will maintain the career open to the talent.

* Thus in practical application condition (1) above—that the special talent shall be developed in the future teacher as a *humanist*—would be ensured by associating the university faculty (or subject) of Pedagogy with the particular group in question.

The curriculum would gradually cease to be a bundle of school subjects, largely isolated from the activities of the great world without though co-ordinated—often artificially—with each other and with a certain time allotted to each more or less arbitrarily; but would instead of this become an organic unity of culture instruments co-ordinated in the thorough way that springs from a union of abstract ideals and ideas with their concrete applications and tests.

The varying abilities of pupils and teachers would be considered in a few well-marked groups naturally corresponding to the fundamental culture sources; but the supreme object of the teaching would be the evolution of Humanists, in their different categories, each developing as a whole in complete life and living.*

Some subjects now prominent as isolated elements of the curriculum would disappear as such, though receiving due attention in themselves at appropriate intervals, and others would gradually become transformed in substance and field of application.

Chemistry, physics, biology, and geography, etc., would in the main merge into unity under nature culture, alike genetic, systematic and practical; and this not only in the class-room and laboratory, museum, and workshop, but in home and garden, farm, field and forest, air and mountain, sea and mine. Here, indeed, folk, craft, and nature uniting in fertile union, "culture" would recover some of its primitive force and meaning as the cultivation of fertile, healthy and beautiful plant and animal, with the inevitable beneficial reaction upon the mental, moral, and physical aspects of pupil and teacher alike—and supremely so in the home.

Perhaps the most important single type of Nature-Humanist would ultimately become the physician (or

* Professor John Adams reminds us of the witty tilt of Lavisse against an education in which "un fragment d'éducation s'adresse à un fragment d'écolier."

teacher of health), the woman even more frequently than the man, for the great and noble traditions of medicine in its hygienic aspects will definitely and increasingly enter and breathe new inspiration into the school.

Drawing and modelling, reading, writing and counting as fundamental instruments of mental activity would be utilised in all three branches, folk (or literary) culture, nature culture, and craft culture.

Mathematics would become considerably transformed, part of the present subjects being developed and applied under the stimulus of folk-culture, part under the stimulus of nature-culture, and part under the stimulus of craft-culture. As applied to the last (craft-culture), forms of mathematics, at present new to the schools, would arise more fitted to those pupils who have predominantly artistic abilities, such as the application of the geometry of position to design and decoration, a geometry once richly developed in Saracenic culture, and at length again attracting the attention of scholars.

The study of the evolution of the arts and crafts and their place in civilisation would enrich the sphere of folk (or language) culture ; the creative and constructive abilities of pupils would obtain scope not only in craft-culture but in folk-culture, with drama, festival, and scenery. Each occupation has its joyous festival.

Under nature study, the beauties of nature would receive equal attention with its truths.

Under folk culture would also come the exercise and development of the pupils in creating and maintaining school institutions, where scope would be found, among other things, for the government by pupils of themselves.

Under craft culture, different types of schools in town and country or different branches of the same school would develop, according to circumstance and opportunity, one or more of the sub-branches as artistic

handicraft, mechanical handicraft, architecture,* domestic craft and domestic organisation (or home craft), rural crafts (gardening, agriculture, etc.), air craft, and so forth. The principles and practice of co-operation, organisation, and social and industrial government would also find special scope in such well-organised constructive activities, and a practical field be found where every pupil could contribute something of value to his regional home as a genuine test of the spirit of his love for her.

In a word, the school would tend to become an idealised epitome of the best features of the great external world and a training of each pupil for that world, socially and individually and in harmony with the broad nature of his (or her) particular abilities and character.

In respect of the urgent need of the introduction of craftsmanship of all types into education, experience† shows that an important proportion of those boys—and the same is believed to be the case with girls—who show special facilities in :—(1) mechanical drawing ; (2) actual workshop technique ; (3) the creative impulse in art work, no matter how its expression were conveyed ; (4) instinctive understanding of the meaning and use of the devices in modes, models, and mechanisms, a valuable proportion were not of the type labelled "clever" at school work ; nay, regarded both abstract notions and books generally "as a plague and noisome pestilence." We have too much forgotten the existence of "*l'homme-machine*," as a noble element of man, in the school ; and been too commonly obsessed by him as a "hand" in industry.

* Here particularly should open out a new evolution of domestic architecture in the hands of women, too narrowly confined in the past to decoration and making of clothes for the body and textile furnishing of the home.

† In *after-school* life, tested by competent craftsmen.

The School as an idealised Model of the World, and the World as a realised Model of the School.

Expressly do we speak of the school as an *idealised* epitome or model of the world, not merely the world of ordinary affairs but the whole of humanity, body and soul, past, present and future. For in its preparation for the present the school must nobly recapitulate the past and as nobly rehearse for the future.

The spirit of Vesta as Alma Mater with her torch of learning.

Fatal to all fine spiritual development would be a successful attempt to transform the school, whatever be its type, general or technical, into a mere epitome or model of the present world without, however apparently efficient as judged by worldly and therefore temporal standards. A good school works for eternity; herein its majestic spirit must needs be different from the soul of business, justifiably seeking its temporal profits.*

To the express end of the maintenance of this distinction has humanity slowly and painfully evolved the spiritual organ known as the school, itself (including the universities) but the deliberate extension and prolongation of that sacred private school where the child learns of goodness, truth and beauty at the loving mother's side, the reincarnation of the ancient Vesta.

The school, that grand instrument and organ of man's creation, fails lamentably in its highest duty and privilege if the pupils leave without *incarnating* in themselves something substantial of those lofty spiritual ideals and objects of the race transmitted from teacher to teacher by the inextinguishable torch of learning.

The dream creates the drama; and the evocation of ideals in the soul within with the firm establishment

* An important and instructive struggle is proceeding in the United States and other parts of the world on the relative merits of "vocationalism," and "liberalism" in the schools. We hold that a wide view harmonises and embraces the good in each. Education is for *livelihood and life, and divinely seen is also prenatal and postmortem.*

of these by correlative activities in the body without—this is the magic wand of spiritual Wisdom that Alma Mater can give her children.

In this way can the school, humbly profiting by worldly wisdom and the mighty activities of the world without, in its turn mightily influence that world. If then our conceptions are sound and just, two conclusions would seem to follow. *The school should become an idealised model of the world, and simultaneously the world should become the realized model of the school;* perpetual and complementary tasks for the human race. The great statesman sees the nation as family writ large.

Janus and Vesta.

The Three Types of Teachers in the New Humanism.

We believe the time is coming when every teacher will be expected to reach a certain reasonable common standard in the three fundamental sources of culture—Scholarship (or Folk) Culture, Nature Culture and Craft Culture—and, in addition to be specially qualified in one of these branches; so that every teacher will be a Humanist, but a Folk-Humanist, a Nature-Humanist, or a Craft-Humanist, according to his (or her) bent and character.

Folk-Humanists, Nature-Humanists, and Craft-Humanists; or Heart-Humanists, Head-Humanists and Hand-Humanists.

Nor does this involve any addition to the tale of bricks the training college student has to complete at present; its realisation will become possible by a gradual reorganisation of curricula on the lines above mentioned.

Thus, using heart and head and hand, each power in fit proportion to his gifts, a trinity in unity, will the teacher take the fullest joy in his vocation and the talent of the pupil blossom in the gentle rain of sympathetic criticism and the sunshine of understanding

praise. The richer the opportunities Society can offer to the young Individual, the richer the return the Individual can make to Society.

* * *

Part II. The Creation of a Faculty of Arts and Crafts necessary in the Universities of the World.

These principles, whether applicable or not to other types, we desire to see applied at least to teachers of craft subjects; and for this purpose we think that the creation of a new faculty is necessary in the modern universities—a Faculty of Arts and Crafts, in which, jointly with the Faculty of Education or Pedagogy,* the best of the new type of Craft Humanists (whether urban or rural) may have the opportunity of graduating and thus set a high standard for the whole movement in town and country. Such a Faculty of Arts and Crafts would, we take it, aid and co-operate with existing schools, colleges, academies, societies and institutions embracing such branches as architecture, painting, drawing, sculpture, design, the various groups of allied artistic mechanical crafts (as wood and metal work, bookbinding, printing, jewellery, goldsmithing and silversmithing, pottery, basket making and so forth), artistic housecraft (or homecraft), and artistic rural crafts (gardening and so forth), and the history of the evolution and the literature of the arts and crafts with their place in civilisation and culture.

Need of faculties of artistic occupations.

"The mason's ways are
A type of existence,
And his persistence
Is as the days are—"

"Il faut cultiver son jardin" (*Voltaire.*)

Such faculties would enable art-craftsmen to exercise influence upon public opinion and statesmanship in collective capacity.

* We fear it is too late in the day now to avoid the use of this pedantically professional and uncouth word.

The broad influence of the university is, we believe, vital to the due development of craft culture in the schools. We may add that this co-operation cannot but exercise profound influence on the welfare of the university itself, by bringing it, perhaps for the first time, into direct sympathetic contact with the industrial work of the masses, through the various types of schools in which its influence will be exerted. By indirect path, such reciprocal benefits must necessarily affect the artistic judgment of future statesmen educated at the universities.

Influence of such faculties on public opinion, politics, schools and universities.

Not least in the field of science will such contact prove fruitful, a veritable marriage of art and science.

Fertilising effect on science.

In Paris and other continental centres of research, the concrete problems stimulating to scientific developments of an entirely unexpected and fresh type, with vast potential promise, are being found increasingly in the fields of artistic crafts. Again will return the spirit of Leonardo da Vinci, of Michael Angelo, of Albrecht Dürer, at once scientists and artists, and, beyond all, humanists.

Science itself will come to fuller recognition of the vital need of the concrete cultivation of the æsthetic faculty, and of the central *rôle* it plays in the creation of fertile hypotheses and the discovery of truth. In more recent times we recall Linnæus and Darwin, gardeners as well as great biologists.

Of great significance, also, to the later discoveries of Faraday was his early apprenticeship and training in the artistic craft of bookbinding; to which should be added the early influence of the blacksmithing craftsmanship of his father.

"Peter the Great," it has been well said, "perhaps opened a Russian window to the West somewhat too violently, but, in organising a strong arts and crafts element in the education of the nobles and future

rulers, he surely did well, this imperial shipwright and carpenter and watchmaker."

Epoch making, again, in its influence upon discovery, philosophy and letters, was the fruit of Bacon's attendance in Paris at the scientific and artistic lectures of the great potter, Bernard Palissy. Cross fertilisation has its field of fruitfulness in the evolution of mind equally as in the evolution of plants.

Arts and Crafts in the Ancient World regions.

The industrialisation of the world proceeds apace. It is full time that the universities exercised not merely an increasing scientific and technical influence upon this portentous movement as heretofore, but should consider more broadly and deeply the humanisation of it. Upon the difficult problem of the artistic mastery of the machine process we are ourselves venturing to offer suggestions elsewhere. Here we have in view for the moment the future and fate of those numerous "arts and crafts" industries widely spread throughout the ancient East. The co-operation of the universities with the leading men and women in these various groups would alike re-open the culture of the East to the West in rapid and pregnant fashion and reciprocally aid the development of the East by contact with the culture of the West.

The intimate dependence of the art products of the highest type upon the philosophical and religious beliefs of the period is too little appreciated in the West. Thus one of the most beautiful schools of flower painting in the world, the Chinese, at one period (its best) flowed from the intense influence on the artists of a certain school of contemplative thought in philosophy, during the Sung Dynasty of China (A.D. 960–1280), a period second in importance only to the T'ang period (A.D. 618–907), when the painters, inspired by the famous Zen theory

The spiritual ecology of religion, philosophy and art.

of contemplation, produced flower paintings of the most finished delicacy and beauty, the symbolisation of the very soul of Flora. Nor are such benefits one-sided. These precious gifts of new life from one flower of the human garden to another are ever repaid in generous measure; and philosophy in turn periodically becomes reborn under the fertilising seed of art.

Nor have we in view the co-operation of the leading artists and craftsmen only.

Experience shows, in fine, that education is likely to profit increasingly by frank and generous recognition of the educational value of certain qualities uniquely possessed by the ordinary artisan and other craftsmen. These also, in gathering measure, can, with certain supplementary pedagogic training, assist powerfully in the schools both in the West and still more in the East.

The educational hierarchy of learning, science and art and the hierarchy in the great world without should run nobly parallel with each other.

The best traditions of industrial apprenticeship were for centuries once open in the West to pupils at a very early age; in the East they still largely obtain. To bring these invaluable craft traditions into the schools, to free them for educational purposes from direct financial pressure, to humanise them for culture, cannot but enrich education itself. And perhaps no more potent lever can be forged for the ultimate extension of the whole school life, and the adequate maintenance and development of educational finance.

Nor is it desirable, in the long run, that the craft traditions thus introduced shall be confined to a few particular groups as at present. All the various and rich groups of mechanical and artistic crafts should be encouraged in due measure, from fit time to time, to contribute some of their best and most thoughtful exponents (master-craftsman; rajah-mistri), men and women alike, to every field and region of the whole sphere of education. Gradually evolving in width of

world view, the various great groups of Guilds (employers' associations and employees' unions) will surely co-operate with university growth by noble representatives from governing body to senate and teachers, to students and scholars.

* * *

Part III. Technology and the Humanities.

There is a growing world tendency, in higher technological education, to include not only the original and essential elements of pure and applied science with their laboratories and workshops, but also languages, political economy, history (especially the history of the occupation and its place in civilisation and culture), civics, finance, administration, philosophy and art. This is pre-eminently true of continental and American technology.

This tendency is surely destined to permeate all stages of technical education. The history of the various crafts and other technical human activities, both in themselves and in their relation to the rest of civilisation, their influence on culture and the reaction of culture upon them, are being increasingly studied by craftsmen and others, predominantly perhaps in England outside the universities. In a word, technical education is finding a junction with the humanities and citizenship in the best senses of these two great words. London University, with its two chairs of Sociology, from a broad regional standpoint might nobly guide so widespread a social desire for university recognition of the cultural as well as economical function of the artist, the artisan, the peasant, the shepherd, the sailor, the woodman, and other craftsmen. Particularly grave has been British university and political neglect of sylviculture, an art highly esteemed and developed by all other great civilised states.

It is vital to satisfy the wide demand of craftsmen

for the socialisation of culture springing from and applied to the facts and conditions of their own life work. The humanities and philosophy must be brought again to the market place.

The university recognition of the most skilled exponents of the manifold crafts will raise the prestige, the appreciation and the quality of their work. Though the large workshop gets larger there are many signs of a re-growth of the small workshop in the more humane and artistic crafts after the long persistent decline of these latter; and in this forecast we might, stretching somewhat the name workshop, include the growing renascence of the domestic arts and crafts. Quality of goods must revive increasingly in importance. The future position of the craft teacher also is a considerable factor, and this in all grades of education. His ultimate university recognition is certain, though there may be many set-backs in the long struggle in front of him.

Technical education—and this is true of education in general, for in the broadest interpretation all true education is a tapering pyramid, technical at its summit and general at its base—has two final objects, one fundamental, the other supreme. Fundamentally, technical education must fit the pupil for his bread-winning work in the world and must thus respond in reasonable measure to the commercial and industrial demands and state of the contemporary world. Supremely, on the other hand, technical education must never forget that it is education not commerce or industry, that its pupils are the citizens of the coming generation not of the present; and here the humanistic side must rise supreme, with its history and literature, art, science and sociology, so that the student who enters the portals emerges not only fundamentally as a craftsman and worker but supremely as a humanist: in a word, as a citizen-craftsman. Technical education is clearly destined to act as the great intermediary uniting the higher academic culture with the work of the masses to the mutual benefit of

both parties to the union, humanising and aristocratising the toil of the one, democratising and deepening the culture of the other.

The ultimate junction of culture and craft, each in its widest sense, is assured by the persistent and massive nature of the various bodies and groups working steadily in this direction, and increasingly towards a line of large and conscious co-operation. The ancient and noble use and meaning of *discipline* must revive: a truly *disciplined* man is one who has submitted himself to *discipleship* of the master-craftsman who has *learned* his work and can teach others till they too have *learned* theirs. And with such discipline of soul and body as wholes of equal dignity and use, the inner organs and tissues and their psychic counterparts will also recover and maintain their contributory disciplined life, with resultant sanity of sister soul and health of brother body under the guidance and inspiration of the divine master and mistress spirit.

Finance; and true Economy as Saving, Spending and Producing.

The increase of funds required for the further, fuller and higher developments of education can be accelerated by national recognition of the intimacy and even indissolubility of the deepest needs respectively of education and workmanship, of culture and craft, of university and people. A large educational outlook of this kind, resting immediately upon technical education as uniting the two needs in one, and based upon facts and realities yet idealised in presentment, is the one instrument capable of touching the national imagination, and attracting the necessary funds and opportunities for disciplined occupational training from nation, region, city, individual, and occupational group (both associations of employers and trade unions of employees).

Such an outlook will aim at enlisting at the outset

the sympathies of the technical schools and colleges on the one hand, and of the university, the secondary schools, and the primary schools on the other; and thereafter widening its appeal to the whole community.

The increasing entry of the craftsman and craftswoman into education will increasingly produce that highest and enduring type of economy in the original sense as embracing not only elimination of waste and saving of energy and wages, but still more the accumulation of reserves of health and an increased productivity, alike in quality and in quantity, due to discipline, solidarity and skill. Saving and spending are mother and father of productivity and fruitfulness; if those are wise, these are wise; if those are foolish, these are foolish.

* * *

Part IV. The world-wide return of the Wandering Scholar.

In the coming re-awakening of China and India, the re-irrigation and re-population of Mesopotamia, North Africa, and other large and ancient regions of the world, and particularly with the potentialities of Russia and Siberio-Russia and of Neo-Latin Central and South America, there will inevitably be a return of the old wandering scholar in all vocations on a scale probably as yet unwitnessed by the world. We urge the west to prepare betimes for this immense development of educational work, and, by sympathetic study and organisation, both help forward the movement and benefit themselves thereby.

After this revival of an old custom has reached a certain strength we may confidently anticipate,—perhaps within a few generations—discoveries and developments in literature, science, and art, comparable with those initiated by the great wandering scholars of Hellas, such as Thales and Pythagoras, Herodotus and

Thucydides, Æschylus and Sophocles and Euripides, not forgetting also the equal near, middle and far eastern contributions.

Not the least fruitful result of the world wide wanderings of the future scholar merchant and merchant scholar, student craftsman and craftsman student, will be their mediatorial *rôle* between all regions, enriching their temporary university homes and stimulating the growth of sympathetic understanding * between geographical neighbours where formerly yawned chasms of antipathetic rivalry.* They may become co-operate architects in the grand labour of building those sadly needed inter-connecting flights of steps—to use Professor Fleure's illuminant picture—up and down which neighbouring civilisations and cultures may approach each other in friendly spirit alike along the frontiers of the mind and the frontiers of the land.

* Western study of Eastern culture, particularly of Indian, has hitherto been too exclusively devoted to religious and philosophical spheres in isolation from the environing civilisation. The inevitable result is imperfect sympathy and understanding both of the sacred and of the secular life. Increasing attention should be given to the other great complementary spheres—fine and applied arts, domestic and social life, economic, political and diplomatic thought—alike, ancient medieval and modern. (See also Chaps. IV., VI., IX., XVI., XVII. and XVIII.)

CHAPTER XI

SECULAR KNOWLEDGE AND SACRED KNOWLEDGE

Mathematical science and Man the microcosm.

IT will not have escaped observation that in the brief outline we have given of university developments, one subject of culture, one study, occurs almost throughout, and one alone.

The return of Ptolemy.

That subject is mathematics. It is because this science is incomparably the most ancient of all studies that have been systematised by humanity.

Mathematics has a history unparalleled for continuity. A study of its development reveals striking and instructive parallels between its successive stages and the political world-movements with which, little suspected as they are, this science of sciences has the most intimate relations both as cause and as effect.

To its development all nations in recorded times have contributed, Egyptian and Babylonian, Chinese and Hindu, Hellenic and Roman, Persian and Saracenic, American and modern European.

Finally, it is the basal science of all sciences and of all their numberless practical applications; it is the science that measures for us space and time, the body-composing dust at our feet and the starry heavens above; without its existence no other science is possible, and therefore also no art of man whatsoever. The very dominion of the air rests on further mathematical discoveries and creations in its aerodynamical branches, and these in turn await their higher arithmetic.

Competent judges have given their opinion that, of

all the mighty gifts made by the Hellenes to mankind, their contributions to the science of mathematics were the most splendid and useful. We would not ourselves perhaps go so far as this; but we can well appreciate the significance of such a judgment.

An era is opening in which the Copernican view of man and the universe will gradually find subsidiary place, though still majestic, in a return of the Ptolemaic view wherein man and his future will become again the central interest of the universe and man once more will find himself, in still deeper sense, meaning, and significance, one with the sun and the moon, and yet one also with the earth his home. Sociology has still to discover its human Fourier-series. Such appears to be the trend of the next mighty rhythm of thought.

Man the microcosm.

* * *

"*Mathematics is the Queen of the Sciences*" (Gauss).

Far from the bustling world in enchanted chambers below all the colossal technical arts and activities of modern civilisation in peace and in war sits the Queen of Science silently weaving her web of thought, gossamered in texture yet stronger far than the finest tempered steel, more potent in explosive energy than the blast of dynamite. Without this invisible web all material power would vanish into nothingness.

"None ignorant of geometry may enter my door." (*Plato.*)

This Queen is Mathematics.

In itself her mighty and continual work of silence is neither moral nor immoral; it is amoral.

Indifferent to her is the use man makes of her magic; but without it he can no thing do.

All decisive for his welfare is the spirit in which he handles this key of magic that may open for him the Garden of Eden or the Gates of Hell.

* * *

*The Traveller and his Fable.**

Truth as woman: Science as man.

Ten paces in front of the dignified extension of the Munich University two mighty granite monoliths stand, and face the stranger passing by. Crowning each is a bronze figure, upright: the one, a youthful hunter, vigorous and naked, glorying in his triumphant chase; the other, a woman in the act of throwing off or putting on her veil, thus perpetually half revealing, half concealing the transcendent beauty of her body. The man is Science, the woman is Truth. Executed by the famous sculptor Hahn, these figures were erected but in this last lustrum of our civilisation. The humble traveller stands musing long before these arresting monuments.

The Secular and the Sacred.†

Truth sacred: Science secular.

The great artist is ever the deepest interpreter of his age, be he sculptor, architect, painter, actor, poet, or musician. For are we not potentially all artists, and is not this spiritual potency within us awakened into consciousness, reality, and power by the achieved works of the great artists of our race? For in a light so illuminant do these works set forth our own age that the great story of the past of human culture may be seen in its reflection, and the future also glimpsed,

* This study of the *rôle* of mathematical science will, it is hoped, be found useful, with Chapters IV., XII., XIV., XV. and XVI., to serious students of the science of government. Man is here considered as a microcosm of great nature; and there follows of necessity the *rôle* of secular science in the art of government. Too long has this *rôle* been ignored in England. Not so was it with the mighty thought forces created in the eighteenth century which enabled impoverished France to defy Europe. We need recall but a few out of that great galaxy of names—D'Alembert, Lagrange, Laplace, Lavoisier, Carnot.

† Chapter XI., by kind permission of the Editor, is reprinted, with substantial additions, from the *Journal of Education*, 1913.

though along each vista of vision it must needs be with deepening obscurity as the centuries mount in number.

Science! Truth! Two words whose pregnant power for education may be hardly, if at all, outmatched. For nigh a century have not these words been largely misinterpreted and their appropriate spheres all too greatly confused?

Be the answer to that as it may, to us the sculptor of these trenchant figures appears to have revealed the young soul of this new century, destined to wax mightily in this generation and its near successors till the centurion, now a stripling, shall have told his tale and the prophecy of the artist be fulfilled.

Science and Truth? Each is knowledge: wherein, then, the essential difference?

Many a bulky treatise of old has been written to elucidate the ideas underlying each. Recognising here the limits to our space and the patience of our readers, we are content to suggest for their consideration the restoration of an ancient distinction for modern times, and characterise Science as knowledge that is secular, Truth as knowledge that is sacred. Does not Science discover facts and obey the canons of logical consistency, while Truth creates its own laws and reveals them? Do not the facts of Science melt under time, while the myths of Truth abide its pressure? Science, then, were mathematical; Truth mystical.

But, asked to give examples of each in its purity, we must needs confess our entire inability, believing as we do that neither exists for man without the other. We are indeed driven to compromise, as we can conceive no fact that contains not some mingling of myth, and no myth that contains not some ferment of fact. Wherefore languages, and other symbols of whatsoever type, evolve by compromise according to the predominance conceived to exist of the one element or the other; and life is the ceaseless solving of a paradox.

Form and Spirit.

Every thing has form and is spirit. Thus, accepting *form as that by which we distinguish things*,* whether in time or space or both; and *spirit as that by which we identify things:* we offer an equivalent interpretation of Science and Truth in the affirmation that *Science is knowledge of form, Truth is knowledge of spirit.*

Man the hermaphrodite.

All things are one to man till they take on form. The more minutely we investigate form, the more do things differ. Spirit universalises and unites; form individualises and isolates. Truth is the infinite in knowledge, form the finite. Spirit is immanent in form and transcends it.

Humanity as eager hunter is ever chasing this ideal, and yet also being ever thereby chased—the realisation of spirit into form, of the infinite into finite, of superconsciousness into consciousness, of Truth whose beauty is shyly revealed and dimly apprehended into Science, whose facts are naked and unashamed and comprehended with clear-cut, sunlit precision. Hermaphroditic in the inmost core of his being, though in sexual proportions vastly varying, each human being is partly a male chasing the eternally elusive female Truth, partly a female artistically creating the forms that shall reveal to her the beauty of herself.

* "Form" is commonly associated with vision; in the above use, things of the soul have "form" as well as things objective—volitions, emotions, ideals, ideas, images, desires, feelings, perceptions, sensations. In the last analysis on the line of argument and approach by the *senses*, it would appear that all mental phenomena have a thermal aspect, the correlative of the *temperature* sense pervading the whole body. The ultimate apathy is the cold of death. Temperature sense is fused with ethical effort. Dante punishes his deepest sinners at the frozen centre of hell; great poetry and deep science in union.

The three Worlds of Nature. Know Thyself.

The supreme ideal of humanity is co-operant marriage with Nature, a male to Man as female, female to Man as male.

"I study myself; herein I find my physics and my metaphysics." (*Montaigne.*

Three worlds has Nature—the world of matter and energy; the world of life; and the world of humanity; or, briefly described, the physical, organic, and human worlds respectively.

Humanity's first endeavour and last is co-operation with the world of nature within each individual human member. It is in his ceaseless endeavours to co-operate nobly with his own passions that each man enters upon the endeavour towards noble social co-operation with the outside world of nature as human.

Here re-commences the primal lesson; here Man rediscovers the basal law of all noble life—that he can co-operate with his nature only by obedience to its laws.

This maxim in its narrower form of "*mastery over nature*" was eloquently preached by Francis Bacon three hundred years ago as applicable to all Nature. Through countless unsuspected channels of influence it was mightily potent upon the scientific achievements of succeeding centuries. But potent was the maxim for this reason above all: that it met with a responsive echo in the breast of every reflective man, being an outward-seeking form of the millennial inward-seeking maxim of Delphico-Socratic fame, "KNOW THYSELF." For each individual man is a wondrous microcosm of beings within himself, composing a very commonweal; and each of these beings is, as himself, simultaneously a machine, an organism, and a humanism. Herein man achieves that golden mean of life between subjective and objective activities. But if he fails to balance the mastery of outer nature as mechanical with his equal mastery of inner passion man is driven

with irresistible power to conflict and crisis, to anarchy and war.

The worlds of Nature are three, yet one; but one alone in Man himself. To co-operate them with the common-weal within his own nature, body with soul and soul with body, Man must needs discover the laws of Nature mechanical and the laws of Nature organic, as well as those of his own being as specifically and pre-eminently human.

Man as a real trinity in unity of the three worlds of Nature.

Whence perpetually and periodically flow outwards and return inwards those undying instincts of humanity that impel to universal interests in the three worlds of Nature, and to passionate research of Man's leaders into its very arcana. In rhythmic oscillation to and fro, the reach into the outer world of Nature, through the stern lessons of experience, has ever in the end advanced in equal step with the penetration into the jungle of the natural world within each man; though at one time—as for the last century—the advance into outer Nature is in front; at another time the advance into the inner Nature of Man himself, as in mediæval Europe. Thus, to name but material aspects,—the levers, heat engines, electrical apparatus, and the great pumping heart within this body of the common man are models, for ever unapproachable in their beauty and efficiency,* of the corresponding mechanisms designed by man in the outer world; and deeper understanding of either group illuminates ultimately the functions of the other.

* See p. 169, footnote. In ancient Hellenism the Earth was the centre of the Universe, man's body a divine temple and the model of all art, man's mind the measure of all things. Since Copernicus dethroned the fixed majesty of the earth, the Western world has wildly oscillated between grotesque extremes, now exalting man to a god, now debasing him to a miserable earthworm. Yet modern mathematics now declares that *the heavens and the earth move round each other.* Is it not, then, now open to man to unite the Ptolemaic and Copernican inspirations, as equally valid, in soberly balanced rhythm in all the manifold spheres of life? (See also p. 157.)

Mathematics and the World of Physical Nature.

Digging thus for the moment subjectively into history and confining our vision to Europe, we see these irrepressible instincts creating modern physical science in the sixteenth and seventeenth centuries, and, as the mightiest thought-instrument for discovering Nature's secrets, the simultaneous development of higher mathematics, analytical geometry and the calculus of infinitesimals and infinites, with their manifold ideas, methods, and symbolism.

Modern analysis outruns synthesis and leads to anarchy alike in thought and in society: the dethronement of Euclid presages social anarchy and the fall of kingdoms.

At length so rapidly grew the mighty building of mathematics that the foundations threatened to become insecure for so weighty a superstructure; and by the middle of the nineteenth century we find questions of the validity and nature of its axioms, definitions, and postulates under anxious, even feverish, consideration in all its branches; here the axioms of a time-honoured Euclidean geometry, there the fundamental laws of algebra, or, again, the basal postulates of mechanics and the significance of number itself.

The reverberating influence of this penetrating research into fundamentals extended forthwith into philosophy and theology. Most strikingly were such influences revealed by the grand critical work, alike destructive and constructive, of the pioneers (Italian, French, German, Hungarian and Russian *) of non-Euclidean geometries, making obsolete many of the Kantian views of geometry and therewith philosophical theories built upon them. Education, too, as will presently be noted, at long last thrilled with the news and proceeded to refurnish its own house.

Remembering too that thought and action are ever

* Saccheri, Legendre, Gauss, Wolfgang Bolyai and Lobatschevsky.

periodic counterparts, we may note the simultaneous over-emphasis on analysis leading to anarchy both in science and in society; and thus the dethronement of Euclid after conflicts and revolutions in the world of science presaged with fatal certainty wars and revolutions and the fall of kings in the world of politics.

Mathematics and the World of Living Nature.

We turn to the world of Nature as organic. Not infrequently does it happen that the master idea of an age penetrates contemporary spheres of science more durably the less its influence is suspected. So has it been here with the modern master-idea of evolution—or mistress-idea, in the profounder synonym of the French.

Under its inspiration the bold speculations into the foundations of mathematics inevitably attack at length the very bases of logic itself, and the long established laws of thought undergo transformation; slowly it is becoming admitted that the axioms of thought are also subject to formal evolution.* In this way not only the master-idea of evolution but also its specific offspring have begun to influence mathematics, widening its bounds, whilst the characteristic thought-instruments of man scrutinising organic Nature are being absorbed.

The relations of organisms to environment in functionality; the birth or appearance, the development of growth, and the disappearance or death of organisms; the relations of parent to offspring; the fertilising conceptions of classification, groups, and order; and similar underlying ideas of biology are gradually creating parallels in mathematical regions, of

* See "A Study of Mathematical Education," by the author, Chaps. XVI. and XXII. (Oxford: Clarendon Press, 1908); and particularly pp. 338–342, written for the German translation, ["Betrachtungen ueber Mathematische Erziehung vom Kindergarten bis zur Universitaet," translated by Drs. Schimmack and Weinreich; Teubner, 1913.] The additional pages are also contained in the Russian translation now being prepared by the scholar Dr. Kulischer.

which more than the beginnings are visible in modern research, though we should be fully prepared to find the authors repudiating any such ancestry.

With its traditional power as the supreme symbolic instrument of man, mathematics at once proceeds to the invention of whole armies of new symbols to settle and exploit the new world it has thus unconsciously entered—symbols which themselves, however happily chosen, must take their chance of survival in the struggle for existence.

Reborn in the mathematico-cosmological speculations of Kant and of Laplace, "evolution" peacefully permeated the science of life and in the hands of Darwin and his predecessors received immense additions in scope and meaning. From biology it returned increased in force and rapidity to its birthplace in mathematics, producing the amazing effects above briefly enumerated; whence again it invaded physics and chemistry; and at length, a few generations later, the whole sphere of human activities in science and art, agriculture, industry and politics, religion and literature, is dominated by this offspring of mathematics by the end of the nineteenth century.

We may epitomise this section in the statement that mathematics is increasingly destined to become the calculus of life, of form as organic.

Mathematical Education.

The direct effect, increasingly to develop, of these great advances in mathematical science upon education in the schools is, in the main, threefold.

The tree of mathematics.

Mathematics is felt to be a mighty instrument for the interpretation and mastery of the world of Nature.

The research into its foundations, and the results thereof, have pointed unmistakably to the need of the

practical maxim: fit the degree of rigour of the reasoning to the degree of psychologic maturity of the pupil. A maxim significant also for the art of government.

And, finally, the story of the mathematical development and the biologic study of the child have established a parallelism in their growth substantial enough to justify thoughtful application of the scientific story to the education and discipline of the pupil.

To each of these advances the fruits of biological science have indirectly contributed the main inspiration. Mathematics is thus increasingly felt to be a living thing whose fruitful thought-seeds expand into mighty trees of wisdom rooting themselves deeply into the rich soil of the soul and rearing lofty tops from which vast view points may be gained. And it is a simple corollary, happily well recognised, that the early stages of mathematical teaching, in its simplest elements of arithmetical and spatial knowledge, should be entrusted to the more mystically minded woman rather than to the more severely rationalising man.

Mathematics and the World of Human Nature.

There remain the influence of sociology on the development of mathematics, and the reciprocal relation. For the beginnings of this we have to turn elsewhere; in this aspect of its advance mathematics is taking on the form of a calculus of man, a new species created by the labours of Comte, Le Play, and Geddes.*

To this we would earnestly direct the attention of our readers who are not mathematical specialists, as we are convinced that this sphere is destined to become the most majestically influential of all.

* See "Sociological Papers," vol. I., pp. 103–113; vol. II. pp. 57–119 (Macmillan). Karl Pearson has created another aspect of mathematical sociology that is truly "*bahnbrechend*."

Mathematics as the Science of all Secular Knowledge.

Thus mathematics, while tenaciously maintaining its mastery over the old quantitative sciences, is also successfully invading the qualitative fields of life. To discover the conditions of any type whatsoever of valid, formal reasoning; to elucidate all paradoxes; and these down to the subtlest analysis of ideals, ideas and processes; further to create special symbolism perfect in precision and designed for economy of thinking—no less than these is now the lofty claim of mathematics.

"Father, I have created a new world!" (*Bolyai.*)

But even this ideal does not content its more ambitious prosecutors. In the vision of certain thinkers, mathematics will become the science of all secular knowledge; and as all secular knowledge in the last resort is conceived by these thinkers to be concerned with forms and their mutual relations, which are themselves but forms, mathematics in the opinion of these its prophets is the destined science universal of Nature, whose branches are physics, biology, and sociology.

Not without substantial reason then does this science lay claim to magistral influence upon the fortunes of mankind; and though its profoundest discoveries spread but slowly from mind to mind and from sphere to sphere, the inspiration is the stronger and more permanent. Where its results effect a lodgment, there lifelong they abide. Imperceptibly they grow and imperceptibly inspire sphere after sphere; and so subtle is the peaceful penetration that no power whatsoever can resist its all-pervasive all-persuasive might. In a double sense true was Bolyai's exclamation on the discovery of non-Euclidean geometry, "*Father, I have created a new world!*" The Copernican hypothesis was but one of the many examples where mathematics has at length revolutionised the opinions of the world.

As the science universal of Nature the development

of mathematics is thus to be the mighty thought-instrument by which man shall discover the secret laws of Nature, mechanical, organic and human; and obeying these, achieve Her mastery. And the spirit of mathematics is the fullest union of clearness and precision, brevity and comprehensiveness, coherence and rigour.

Man as the great adventure of Nature; and Nature as the great creation of Man.

The immediate aim of mathematical thinkers working at the confines of the science have been twofold: (1) to reduce the number of postulates to a minimum, (2) to construct a system free from contradictions.

The eternal riddle of man in nature and nature in man.

While admitting the legitimacy and value of these aims as ideals, we venture boldly to pronounce their enduring achievement impossible. In support of our contention we would point to the whole story as already known of the development of mathematics, in which we find each generation simultaneously developing and correcting the results of its predecessors.

But that same story teaches us, through such examples as the famous problems of the trisection of an angle, the quadrature of the circle, or the duplication of the cube, how man's indomitable attempt to achieve the impossible, generation after generation, bears unexpected fruit amply repaying the effort, as the son's digging for the ancestral treasure by the dying wish of the father prepared the ground for the future luxuriant harvest.

For mathematics, this same harvest is the development from the summit upwards, from the foundation downwards, of an endless hierarchy of evolving forms, whose richness and beauty parallel the forms of outward Nature herself.

But there is a ground more solid even than the long history of this oldest of the sciences for affirming these aims to be ideals, and unattainable. *Man*—the thinker,

the discoverer, the mathematician—*is himself a part of Nature universal; through man, Nature must inevitably be conceived by man as fashioning the greatest thoughts.*

Thus, as a part of Nature not only created but also creative, man is ever modifying himself, body and soul, by his own advance in knowledge, and in modifying himself he simultaneously modifies Nature external to himself.*

There is no limit, then, to the creative breadth and subtlety, profundity and loftiness of Man's thought whereby the very bounds of Nature are widened. In ceaseless involution and evolution, coeval are Man and Nature.

The Self-Devouring Serpent.

In one form or another this is the very spirit of the ultimate circle of human thought: the fabled serpent of ancient days eternally devouring its own tail. Too commonly is this circle conceived as vicious, yet let us remember that the oldest serpent of human history is the symbol of eternal wisdom; 'tis a later fable, though admittedly also ancient, that would have the serpent to be the symbol of evil.

The richer myth is the tree of knowledge alike of good and of evil. Inspired by this, we would suggest that there is an expanding circle of reasoning that is virtuous for wisdom, but for folly a contracting circle that is vicious. Such, perchance, is the far-famed universal Wheel of Life—no rigid structure, but ceaselessly expanding and contracting in living revolutions, magically unique for each individual.

Many tough riddles, many hitherto unsolved paradoxes has modern research unloosed, and amongst them the famous paradox of "Epimenides" or "The Liar";†

* Hence the unapproachableness of the models of the living mechanism within man's own body by his externally designed apparatus.

† Whitehead and Russell, "Principia Mathematica" (vol. I. pp. 63, etc.). This great book marks an epoch in modern thought. The other famous epoch-making works in this science since the European renascence

and we doubt not that, by alliances of genius and time, all paradoxes that can be framed will be found successively to admit of rational solution; save the above paradox alone and the infinite all that it involves,—man and nature indissolubly intertwined.

"Om" is a sacred name in Indian thought: it is sign and symbol of the inexplicable mystery of human language; the very spirit of the *Ur-Wort*. Mathematics as the measure of all things measurable, as the number of all things numerable, the science of forms, whereunder fall all realities whatsoever but no spiritualities whatsoever,—mathematics embraces all forms from the language of music to the language of painting and sculpture, from the counters and units of finance to the movements of the stars.

"Om."

But powerful as its scope, its limitations are equally severe. Its forms are but signs and symbols of the infinite and mysterious indwelling spirit, here approaching the bare abstract as in figures, there receding from the abstract as in those forms known commonly as the richly concrete words of spoken language.

It is thus subject to the changing spirit of things, in spite of its periodical conviction that its laws and results have perpetual permanence. Indeed can we in the end deny the statements here following?

are:—"Principia Philosophiae" (Descartes, Amsterdam, 1644), "Philosophiae Naturalis Principia Mathematica" (Newton, London, 1687). To these must be added "Discorsi e Dimostrazioni Matematiche" (Galileo, Leyden, 1638), and Leibniz's papers in the "Acta Eruditorum" (1686, 1695). But where is the critic competent to compare such creative labours? We will not essay a task so delicate and difficult. But this less venturesome judgment we will hazard for the verdict of posterity, that the whole modern international development of mathematics, of which the above work of Whitehead and Russell is a nobly representative English monument, will stand to our following age of civilization no less fruitfully than the renowned works of the giants of Italy, France, Germany, and England did stand nigh three hundred years ago to the age that followed them. In that wonderful achievement of science, Italy gave the initiative impulse, France the clarity and breadth, Germany the subtle ideas and symbolism, and England its characteristic audacity of imaginative universality clothed in the antique garments of the Hellenic geometry.

That every word or other symbol whatsoever is constantly changing its significance so long as it continues in use and so lives.

That no system of symbols can be isolated from ordinary language so entirely as to escape the condition that its interpretation must in substantial measure, albeit mainly subconsciously, depend upon the interpretation of the ordinary language. Thus, though it has been and still is predominantly a science of eye-symbols, mathematics, even in its most abstract types, is also largely a science of ear-symbols and touch symbols and to a less extent also of other sense-symbols, whatsoever be the sense involved from temperature to time. The wide-reaching Euler had moments when his very pen seemed to him uncannily inspired by the invisible spirits of the great mathematical dead. Ideas grow barren and die, too long isolated from common life.

That the creative subtlety of thought is such that to whatever degree, and within whatever provisos, absoluteness and universality may be claimed for a mathematically constructed system, that system will contain certain unique elements proceeding from the unique personality of the creator, valid for himself alone; this particular validity obtains even for him momentarily, and vanishes for ever at his death.

The entry into mathematical science of a great female genius would result in the creation of predominantly new types of the science, and necessitate considerable reconstruction of the present types. This may, perhaps, be more easily understood in physics and biology.

The significance of a word or other symbol is dependent upon its whole historical evolution; and, in the last resort, upon the whole of language and all reality.

It is conceivable that a system of political philosophy could be founded on the significance of so apparently simple a thing as a preposition. Are not prepositions

and conjunctions the most complex elements of language?

Truly, mathematics sculptures science into forms of marble, but even these at length dissolve under the touch of time.

The loves of Mejnoun and Leilah. (*Persian religious symbolism.*)

If he will, man can indeed, as Bacon taught, increasingly command Nature by obeying her laws, but only in so far as Nature shall command herself through Man, her favoured child. But command is not an end: it is a means to an end. Command that looks not beyond itself as mastery merges into despotism and the slavery that at length itself enslaves. Higher than command is its end: the mutual co-operation of Love, to which all rule must attain to avoid the fatal tyranny of despotism. Beyond the supreme scientific ideal of mastery, between Nature and Man shall arise a still higher relation, Man and Nature as Lovers in the wondrous work of creation: such is the supreme spiritual ideal of Man.

"The play of Lilā." (*Brahmanic.*)

Yet again behind Man and Nature, behind Man in Nature and Nature in Man, looms a FORMLESS FORM, *the* ALL-SPIRIT; THE UNNAMEABLE, *yet in our ignorance and knowledge united, with awe named* GOD.

Here we leave decisively the clear world of mathematics—the world of secular knowledge—and enter the dim and sacred world of the mystic, the world natural for the world supernatural: that world wherein at the heart of all sound utility dwells beauty; at the heart of all healthy life dwells truth; at the heart of all noble polity dwells holiness. Secular knowledge, judged in and by itself, is neither evil nor good, neither false nor true, neither ugly nor beautiful; but it is one or other of these according to the spirit of the will that gives it birth, preserves it in being, develops it in strength, and dooms it to decay.

The World of Mysticism.

"No mortal may lift my veil."

Such the inscription on the statue of Isis, goddess of Truth. For Truth maketh man immortal. Here it is that each man needs faith and the courage that faith inspires. For the creation of great truth demands courage equally great, as the soul wanders solitary in the illimitable world of spirit, sailing over phantasmal seas that bear no boat, climbing peaks frozen, dizzy and spectral, sinking into abysses formless, fathomless, and footless. Here Nature, through man, becomes astonied, and even for awhile aghast, at her own creative audacity. *In this world of mysticism the very fount and origin of the spiritual will and creative power of humanity, in the threefold realm of goodness, truth and beauty, of sin and error and ugliness, the canons of logical consistency are meaningless; a thing may both be and not be; here, too, the very laws of Nature find their transformations.*

"No mortal may lift my veil."

For knowledge sacred, every statement of knowledge secular contains both truth and error, as befits man, at once infinite and finite in his being; and time in its endless passage is the increasing revelation of the process by which this indissoluble marriage of truth and error evolves a perpetual rhythm of apparently opposing beliefs, the endless hierarchy of forms of thought successively correcting each other, yet thereby progressively advancing.

Just * as walking is a regularised falling, so is progressive thinking regularised error, and life is the ceaseless solving of a paradox. Ancient Chinese philosophy recognised this rhythm of reasoning, interwoven with the periodicity of man's life and universe from the beating of the great

The spirit of Taoism.

* To use the analogy of Vaihinger in his "Die Philosophie des Als Ob," etc. (Berlin, 1911), quoted by G. R. S. Mead.

heart to the vibrations of his body molecules, from the circling of the stars to the beat of the surging ocean, and applied it with exquisite feeling and effect in the development of its art.

Yet throughout Time, Truth abides Itself!

Man both a Finite Natural Creature and an Infinite Supernatural Creator.

Man as supermaterial.

Not material and finite only is Man, rigorously subject as such to the natural laws of all finite mechanisms; but supermaterial and infinite also, a spirit of beauty, creating and transcending those laws.

Man as superorganic.

Not organic and finite only is Man, rigorously subject as such to the natural laws of all finite life; but superorganic and infinite also, a spirit of truth, creating and transcending those laws.

Man as super-human.

Not human and finite only is Man, rigorously subject as such to the natural laws of all finite humanisms; but superhuman and infinite also, a spirit of holiness, creating and transcending those laws.

Man both form and spirit. Man as a spiritual trinity in unity of the three worlds of the supernatural.

Not a finite form alone, whether material, organic, or human, that is born and passeth; but an infinite spirit also is Man, supermaterial, superorganic and superhuman, that hath not beginning nor end. Natural creature and supernatural creator: such is Man.

Man as Embodied Soul and Ensouled Body.

Man as microcosm of Nature in body and in soul.

As form in the natural world without, the objective world, Man is body, microcosm of the great body of Nature. As form in the natural world within, the subjective world, Man is soul, microcosm of the great soul of Nature. To body, soul is subject: to soul, body is object.

Spirit alone is both in the world without and in the world within: spirit alone can be both object to itself as subject and subject to itself as object. Spirit is alike subject-object and object-subject. Spirit.

* * *

"Cor ad cor loquitur."

Spirit creates itself. Spirit is universal beyond conditions of space. It is within, without, everywhere, nowhere, allwhere, and simultaneously. Spirit is eternal; it is in every time, in no time, in all times, and universally.

Spirit comes we know not whence; it passes we know not whither.

And thus spirit, the light that never was on sea or land, may seem to die yet phœnix-like rise again in flame from its own ashes. It is in love and life and death.

Everything is spirit and spirit is everything. Being everything spirit is also no thing and even nothing. The maxim that is valid for things as temporal—ex nihilo nihil fit—has no application to things as spiritual. Language spiritual explains therefore nothing real; but it interprets all.

Spirit within may call unto identical spirit without and instantaneous is the harmonious union of spiritual ear with ear. Spirit within may see into identical spirit without and instantaneous is the dazzling union of spiritual eye with eye. Spirit within may burn for identical spirit without and instantaneous is the flaming union of spiritual heart with heart.

The spiritual thought within of the far-distant star without unites instantaneously with the identical star-indwelling spirit.

In each and every case the union is independent of

space and time which exist only for things in space and time, things secular and finite.

"Die Mütter." (*Goethe, "Faust."*)

In the mysterious womb of the ALL nothing is impossible; the iron forms of the laws of nature and the granite laws of thought melt in the timeless blaze of eternity as the snow in the sun. The spirit of Man overtops all finite bounds: it is one with the DIVINE.

These laws or conditions eternal of spiritual existence can never be overthrown; for they signify nothing to the unspiritual, and that which signifies nothing cannot be controverted. But to the spiritual they admit of no shadow of doubt; they are here stated in language naked yet unashamed, but their import is mighty to those that have ears to hear, eyes to see, and heart to feel those things that are of the spirit.

Their form will change from generation to generation, but their spirit abides immutable.

* * *

The Return of Cosmology.

Man complete is body, soul and spirit: a trinity in unity, natural and supernatural.

Thus we recover the ancient faith of all great religions, Man as body, soul, and spirit; a trinity in unity, alike natural and supernatural.

Modern mathematics, as of old with Plato, proves once more to be the portal of Divinity.

Science describes a finite world of forms; myth interprets an infinite world of spirit.

Science describes; myth interprets.

Thus is knowledge in part discovered and in part created; and none can trace with line rigorously precise the bounds and limits of each part. With Archimedes, man the mathematician cries, "*Da mihi ubi consistam et terram loco*

movebo!" * but man the mystic whispers in reply, "*Omnia exeunt in mysterium!*" *

The coming World Renascence of Philosophy and Life.

Between the pole of mathematics and the pole of mysticism all thought ranges, approaching the former as it grows more scientific, the latter as it grows more poetical. Philosophy has the eternal problem of their analysis and life of their synthesis. There are many significant signs that a world-wide renascence of thought is preparing that will unite Western philosophy, predominantly active, scientific and individualistic in trend, with Eastern philosophy, predominantly contemplative, mystical and tending to social solidarity. From such a union will spring new life with greatly fertile practical activities; for the union of clear realistic thinking with the divine inspiration and courage of the mystic has been the dominant character of the supreme world-leaders in all ages, ancient and modern, in all climes, east and west.

* * *

We have been travellers awhile in a far country, on the borderland indeed of the realm of Mathematics, the Queen of all Secular Knowledge, and we have tried, as briefly as may be, to describe something of the great forms we were privileged there to see.

By this august Sovereign and unbiassed Judge of all natural thought, cold and unapproachable Virgin, are sent forth, from age to age, invisible hosts that transform at long last the very foundations of society.

* * *

* As geography, based on mathematics, unites mechanology, biology and sociology; so cosmology, based on myth, unites esthetology, psychology and theology. (See Chap. IV.)

Biological Science and Medical Art.

Second to mathematics in the continuity, age and importance of its subject combined, in the story of education, stand biology and its art of medicine.

Here, too, we find contributions from all nations, though this unfortunately has been too little recognised by the medicine of the West, unable to separate the chaff from the wheat, the superstition from the science in the records and discoveries of Eastern medicine. To deal with this science in the way we have just ventured to treat of mathematics our studies have not made us competent. The slowly coming reorientation of the position of woman in world culture and civilisation will surely show its fruits not least valuable in the sphere of biology and hygiene.

*Language.**

Of the supreme discovery and creation of the human race, alike secular and sacred, the mighty instrument of spoken language itself, it is enough to mention the name alone both to evoke its supreme glories and to recognise the impenetrably mysterious deeps of its origin. Of the history of language, of its evolution, man may increasingly become conscious and master, but its primæval sources are perhaps for ever beyond his grasp. Though aspiring mathematics may claim to bring all forms, including language, within its sphere, our common sense as men will justly repudiate a claim so overweening. Otherwise we lay ourselves open to the charge: "A mathematician the more, a man the less!"

* No attempt has been made to trace the contributions of universities to "language and literature," a noble labour for which the author has no competence.

Indirect World Consequences of English dominion in India.

Although co-operation in the evolution of world culture has, since the dissolution of the Persian Empire and the subsequent break up of the Roman Republic, been so indirect between East and West, nevertheless the sketch of university history we have given shows unexpected lines of communication; rough and difficult though such roads have frequently been. And here, not only by way of illustration but as in itself worthy of thoughtful study, we think it of profound importance to direct the attention of reflective folk to the re-birth in modern times of that periodical outflow of Eastern philosophy and religion upon the science and art of the West. Too little attention, in our opinion, has been given to this: too exclusively have even our ablest treatises on the history of philosophy paid homage to merely the Western, and at most in addition to Near Eastern thought.

Yet so profound in thought has been the ferment of Eastern contemplation upon Western action (for the deed presupposes the dream wherever the mighty seed of thought may first have been born) that we are ourselves convinced that one at least of the root elements of the present world crisis arising from the mighty yet anarchic creative practical activities of the West lies in the still mightier creative contemplative activities of the East.

The more profound and therefore ultimately fruitful a thought, the longer is the period of its gestation; this may vary from a few moments of man's life up to centuries and even millenia, hard though it is as the time extends to trace the continuity of the growth. Once again it is a case of the ancestor eating sour grapes and the teeth of the descendants being set on edge.

The invasion of the Near East and the subsequent influence of the Middle East through the colossal political and military excursions of Alexander the Great

had, as we know, effects deep and far-reaching, both upon Asia itself and, by reciprocal influence, upon the eastern European world—for in many ways the civilisation of the conquered Near East was higher than that of Hellas —culminating in Europe, as regards the sphere of religion and philosophy, in a wonderful union or synthesis of several great precedent faiths including Egyptianism, Judaism, Zoroastrianism, Buddhism, and Hellenism itself, probably with more than a touch of the old Slavonic and Scandinavian faiths. The resulting fruit was primitive Christianity, to develop later and become world famous as Catholicism.

The effect of the Hellenic invasion was twofold: on the one hand it initiated new routes both for commerce and culture between East and West; on the other it suddenly re-isolated large regions all over the East, which like a snail attacked drew back its horns; and arrested violently the ancient spirit of intercourse between the two—a spirit which had been on the whole relatively peaceful and quietly penetrating both in culture, co-operation and commercial transactions, despite the periodical rise and fall of Near Eastern empires; in as much as these, unlike the empire of Alexander, had been substantially homogeneous in religion, polity, and race.

For many preceding centuries the influence of Hindu thought, both from the early Vedas and still more directly through the latter Buddhism, was assuredly profound upon the Near East through the numerous and powerful persuasive and peaceful missionary efforts inaugurated by the Middle East in all directions north, south, east and west. There is increasingly strong evidence that the Pythagorean school derived much of its thought not only from Egypt but also from India. And the wonderfully profound ritual of the Eleusinian mysteries has herewith undoubtedly intimate connection, and itself enters largely into primitive Christian mysticism, and still influences European thought.

Important as has been the above Eastern influence,

we believe that developments equally vast may gradually emerge, bringing about still closer relations between East and West, from the domination by the English-speaking race of the mighty peninsula of India, their possessions on the borders of China, and not least by their occupation of that ancient motherland of primitive religions and superstitions, Egypt with its wonderful Nile. To these should be added the Russian influence reaching to the Far East in the north, the French extending to the Far East in the south, and that of the Dutch and the United States to the Far Eastern isles, with their still unsolved linguistic wonders.

The English philologists, Colebrooke and Sir William Jones, shortly after the English occupation of India, opened up to the West that trinity in unity of Indian culture, its philosophy, literature, and religion. The results rapidly penetrated to Germany with its scholarship generously open to all lands, and strongly influenced Goethe, stimulating him to the creation of several great poems, and, though in this instance indirectly through Persian literature, to that noble set of poems of his old age, the "West-Oestlicher Diwan." From Goethe and other contemporaneous sources in Germany, the thought, especially the conception of an Uebermensch (Superman), passed over to Schopenhauer, the child *Jupiter Tonans.* From these the filtered Hindu thought permeated modern philosophy in the West, inspiring Comte to his proud apotheosis of Humanity, Emerson to his "superman" and indirectly leading to the now famous *creative* evolution of Bergson. The Schopenhauerian "Wille," the blind will of Nietzsche his disciple, becomes "the will to power" of the modern military school, primarily in Germany but not obscure elsewhere should the opportunity offer. Thus the germ idea spreads from individual to group in ever-widening circles and regions precisely as do infectious diseases or intense conflagrations. This blind will to power is an amoral Europeanised transformation and almost travesty of that

sublime faith and conception of Hindu Vedantic religion, Man's Brahmahood, man's ultimate identity with the Universal Spirit; for this modern European form of the belief (as superman) is unfortunately not balanced by an equal conviction of the insignificance of man as earth-dust, a combination the great Pascal long ago taught us to be necessary to a sane humility. Along with this Hindu thought come also the beliefs in the transmigration of souls and evolution of bodies. These two beliefs, after marriage with the Darwinian principle of the struggle for existence and a recrudescence of the grand old Scandinavian myths of Valour, form deep-lying and complex factors in the world war. The correlative doctrine of involution, also embraced in Vedantic philosophy, has still to play its *rôle* in the West.

Thus do we see the result of the occupation five generations ago of the Indian peninsula by a European nation (the English), through a process of gradual cultural development and apparently peaceful penetration, reacting in the present formidable manner upon the fortunes of all European nations. A deeper draught from the same Eastern well of calm ancestral sacred truth may help to restore the sanity and balance of the Western world suffering from its excessive reliance on secular knowledge and its idolatry of temporal power.

Not for native culture only will the great university renascence in India prove fruitful, but for English culture equally if approached with deep modesty. In opening the new Hindu University at Benares, the Rome of Hinduism (February, 1916), the Viceroy (Lord Hardinge) said that the ceremony marked a definite step towards the ideal which had stirred to its very depths the imagination of India; it was the declared policy of the Government of India to do all within its power and means to multiply the number of universities throughout India, realising that the greatest boon the Government could give India was a diffusion of higher education through the creation of new universities.

Further Functions of a World University.

The history of university evolution is thus largely a history of the spiritual growth of humanity, and the broad survey we have offered reveals the need of a fundamental reconsideration of certain aspects of civilisation and culture. Among other aspects it should recall, as to the use of these two great words, their modes of origin and the primal sources of their periodical renewal, civilisation dominantly arising, regenerated and refreshed from the life of the city, and culture from the life of the field, though inevitably and always acting and reacting deeply and ceaselessly upon each other; and at times indistinguishably, as all life is one.

A world university must also be international; a vague cosmopolitan spirit is wholly insufficient to enable its highest functions to be fulfilled; it must incarnate in itself the noblest spirit of each and every nation through worthy representatives, official, and still more unofficial. Independent, it must yet be inspired by glowing and illumined love for every people, of all colours and of all climes.

But though international in spirit and function, it must be more than international; it must not only weld together the parts, but itself be enduringly permeated by an emotion, an ideal, a conviction of unity that nothing less than the world of man as a whole is its prime object of love and study; and its central mission must be the furtherance by every noble means of the awakening to fuller and ever fuller degree of the consciousness of every child, woman, and man of their own indissoluble unity and solidarity with the whole human race, ancestors, contemporaries and descendants. In striving to realise these great aims, it must create a vision of knowledge that recognises the indissolubility of the secular and the sacred in the secret heart of man, yet also their distinct and independent spheres of activity for the promotion of the common weal of man and the magnifying of the glory of God.

CHAPTER XII

THE WORLD WITHOUT AND THE WORLD WITHIN
SCIENCE AND OCCUPATION

*Lord Mansfield and the Farmer.**

A STORY told of the famous English judge Lord Mansfield may fittingly stand at the head of this chapter.

A farmer of practical good sense in Australia was made a judge; but of legal technicalities he knew nothing. During his brief stay in England he met Lord Mansfield, who gave him this piece of advice: "*Give all your decisions briefly and boldly, but give no reasons for them. In nine cases out of ten your decisions will be right, while your reasons for them would be wrong.*"

* * *

What is science?

In tracing in brief outline the growth of university studies, we have used throughout the now common word "*science.*"

Science is a living thing.

This word "science" is a word much bandied about. To avoid misunderstanding we would recall certain fundamental aspects of it that

* The hierarchical principle (which is in essence the belief that logic is the heart of science but that life transcends logic) of this chapter was expounded by the author in a public address delivered to students in Sunderland in 1902, entitled "Science and Occupation" (published in the *Journal of Education*, June, 1903), of which this chapter is a substantial reproduction. Chap. XIV. endeavours to analyse more thoroughly this

are apt to be forgotten. What is science? Are we not too apt to think of it merely as something ponderous, contained in equally ponderous books? But it is much truer to think of it not as lifeless printed material, but as something living in the mind and influencing one's work.

Science is born anew in that wonderful world within each man when with deliberate will he succeeds in thinking about the principles of his work in the great world without in a clear, logical, and systematic way, and courageously puts his conclusions to the test of experiment; and the so-called sciences are the written records of such thinking, only more extensive, clear, systematic, and consistent, and more true to reality because they have been tested by countless experiments and experiences in the race.

The world without as occupation and the world within as science perpetually beget each other.

Let us bear vividly in mind this deep truth, that all the mysterious germs (whence? we know not; timeless and spaceless surely? therefore eternal and universal) of all theory, all knowledge, all the broad groups of sciences, originally become stimulated into growth in the experience gathered by man from one or another of his numerous occupations. Thinking and doing arise from each other; thought and action are twins.

The cloister and the market place flourish and decay together.

Truly there are times when science seems to float in the clouds, serenely isolated from the hum and bustle and occupations of the busy world, and developing in some mysterious manner of its own. The thinker must indeed retire into the world within himself at periodical intervals to elaborate and systematise his ideas; but

hierarchical principle of life, and to show the width of its applicability to the conduct of life in the largest sense. The present chapter is simpler, and should be read first.

equally vital is it that he should mingle with the great world without between those cloistered periods.

The more vividly we realise this great truth, that science is continually springing anew from the desire and efforts of men to increase their skill in their occupations by understanding the eternal principles that underlie all dealing of man with nature and of man with his fellow-men (that is, the manual and mental occupations, industry, trade, the professions, and so forth), the more vividly we shall see the deep importance of science to all occupations.

Then shall we recognise also the other side of the relation; for to every action there is always a reaction. If science is continually springing anew from occupations, she has handsomely repaid the debt both by rendering those who follow her teaching more skilful in their occupations, and by actually giving rise by her discoveries to absolutely new types of occupations.

One of the great conditions of the common weal is this unceasing, reciprocal relationship between occupation and science, each constantly producing and being produced by the other. Out of many instances I have chosen here one striking example of the development of science from occupation.

The birth of a science.

Monge was born the son of a French pedlar about 1750. The construction of a plan he made of his native town brought the boy under the notice of a colonel of Engineers, who got him admitted to one of the military schools. His humble birth precluded him from receiving a commission in the army, but he was taught surveying and drawing; though he was told he was not sufficiently well born to be allowed to attempt problems which required mathematical calculations. At last his opportunity came. He observed that all the plans of fortifications

War may be creative as well as destructive.

were constructed by long and tedious *arithmetical* culations from the original observed measureme Monge substituted for these a *geometrical* process had invented, which produced the plan so quickly the officer in charge refused to receive it, because fessional etiquette required that no less than a cer time should be spent over making these drawi When once examined, its obvious superiority was re nised. This geometrical process discovered by Mo was nothing less than a new branch of geometry—kn to students of engineering as practical solid geometr a science in which, by the now familiar method of and elevation, a solid object can be represented quately by construction on a plane—a method wh practical, or, let us say, occupational, value can scar be over-estimated, and the further development of wh by Monge had far-reaching effects upon mathemat science itself. Here we have a new and distinct bra of science springing directly from the occupation war, on its engineering side.

Routine skill.

Let us now each consider his or her occupation f the point of view of the measure of skill which we play in it, and the pleasure that we may derive from it. There are at least two kinds of skill. One and the same individual may possess both kinds simultaneously in different branc of his occupational work, or at different times; in general, each of us has predominantly either kind or the other, according to our abilities and tr ing. Subsequently we shall briefly touch on a third k of skill; but, to avoid confusion in our thought, for present we propose to limit the discussion to t Moreover, this third kind is the gift of nature, inna while the other two are respectively the products definite scientific training, or the want of it.

The skil the plain in all me

There is that kind of skill which every one can more or less develop by sheer imitation and constant repetition, without any sensible grasp of the rationale of the operations he performs. This commonly distributed skill, as it is derived from the routine pursuit of one's occupation, let us call *routine* skill.

Here is an excellent instance, where the routine skill was exceptionally great:—

"Some years ago (says John Stuart Mill), a Scotch manufacturer procured from England, at a high rate of wages, a working dyer famous for producing very fine colours, with the view of his teaching the other workmen the same skill. The foreman came; but his mode of proportioning the ingredients—in which lay the secret of the effects he produced—was by taking them up in handfuls while the common method was to weigh them. The manufacturer sought to make him turn his handling system into an equivalent weighing system, that the general principle of his peculiar mode of proceeding might be ascertained. This, however, the man found himself quite unable to do, and therefore could impart his skill to nobody, as he had never generalised the grounds on which he acted in his own mind nor expressed them in language."

From this and numberless other cases it can be shown that this purely routine skill has, in general, the following characteristics:—(1) It is gained by sheer length of experience in one's occupation; (2) it is incommunicable (by language) to others; (3) it does not, by itself, suffice to enable its possessor to discover or invent improvements in the operations incidental to his labour, either, it may be (if he is an engineer) in improving machinery or replacing routine operations by machinery, or in other ways by which his skill in his occupation may benefit not only himself, but his fellowmen; (4) therefore, broadly speaking, this kind of skill, valuable as it is, being incommunicable, dies with its possessor; (5) it may be and generally is a delight to

exercise this universal and indispensable type of skill; but it does not tend to be accompanied persistently by that higher joy that springs from activity rationally cultivated as well as spontaneously developed.

Scientific skill.

The second kind of skill is the skill which owes its development to a combination of practice with a clear consciousness of the principles underlying the operations one performs—a gradual understanding of the *why* of a process. Remembering that wherever is found clear, systematic, tested and logical thought about the principles of one's work, there and to that extent there is science, we may fitly call the skill that is developed by the application of such thought to one's practical work *scientific* skill.

The power of science.

For the attainment of a high degree of dexterity or skill in the repeated operation of some simple mechanical process, scientific skill *may* be a distinct disadvantage. When, towards the end of the eighteenth century, some of the great logarithm tables were being calculated, it was found that the great French mathematicians Lagrange and Laplace—world mathematicians, indeed, in their greatness—made incomparably more blunders in the simple additions and subtractions and multiplications and divisions than the professional calculators who could do nothing in mathematics but these simplest sums of all—but these they could perform almost without a blunder.

Yet it was Lagrange and Laplace who supplied the very labour-saving formulæ or machinery by which the calculations were made—thereby compressing through their inventive genius the work of a lifetime of ordinary calculation into the space of a few hours.

Here we have the two extremes—highly developed routine skill, with no comprehension of the machinery or formulæ used, and, in sharp contrast, inventors of

the machinery itself, but with little mechanical dexterity in its application.

Now, it *may* be—and, indeed, does actually appear to be—the case that there will always be a large proportion of workers in all occupations who can attain, owing to limited intelligence, only the *routine* skill, and there will be, at the other extreme, a few men so rarely gifted with the creative faculty that they continually pass on from the discovery or invention or creation of one thing to another and thus seldom attain the highest measure of routine skill.

Though even here, be it observed, careful analysis will reveal a sphere in his operations where the great genius displays amazing routine skill, as with Michelangelo and his mallet.

But between these extremes stands the man to whom the combination of science and practice is indispensable if he is to do full justice to his powers: for whom, in a word, *scientific* skill is the ideal.

The master craftsmen of the world of science.

The master-smith.

This harmonious combination of theory and practice in the production of scientific skill is shown in a very high degree in the lives and work of great engineers—Stephenson, Watt, Nasmyth, Fairbairn, and others. It is true that they did not get much of their science from technical schools, because such schools were rare in their times: but what science these men could learn from others they did learn, and they attributed their success mainly to the firmer and clearer grasp they were, by sheer hard thinking, constantly acquiring of the scientific principles upon which all great work is based.

Of such a stamp of ability as these famous old engineers (we choose engineering for illustration as it bulks so massively in modern peace and war, but the educational principles are applicable with equal truth to

any occupation) was Helmholtz, one of the greatest scientists of last century. Such, also, were Berzelius, Lavoisier, Faraday, Mendeléeff, and Kelvin. These great men should be called not mathematicians, not physicists, but, essentially and above all, mechanics—but *mechanics with supreme scientific skill.*

Listen to what Helmholtz says of himself (this autobiographical passage is probably applicable to all great physicists) :—

"As an experimental and mathematical physicist I had gradually changed the geometrical way in which I had looked at the material Universe, as a young man, into a mechanical view. I felt intuitively as it were, how the forces would distribute themselves in any piece of machinery—a power which one finds possesssed by skilled mechanics and machine designers. But I had an immense advantage over these in the power I had cultivated of being able when necessary to express mechanical problems of a very complicated and difficult nature in mathematical language, and thereby, after reaching the mathematical solution, both of overcoming mechanical difficulties otherwise beyond my power and also of being able to communicate my discoveries for the benefit of humanity at large."

He adds subsequently the noble words :—

"As the highest motive influencing my work—though not reached in my early years—was the thought of the civilised world as a constantly developing and living whole, whose life in comparison with that of the individual, appears as eternal. In the service of this eternal humanity my contribution to knowledge, small as it was, appeared in the light of a holy service, and the worker himself feels bound by affection to the whole human race, and his work is thereby sanctified. This feeling all can theoretically understand, but long experience of it alone can develop it into a powerful and steady impulse."

The eternal nobility of service.

With respect to Faraday, it is notable that, in order

to express *his* discovery of new truths, he actually—not being conversant with the orthodox mathematics of the schools—invented a branch of mathematical symbolism, as original and novel as it has since proved fruitful and educative.

Faraday.

Huxley, too, tells us he ought to have been an engineer; for his highest skill as a biologist was not revealed in truly organic discovery, but in anatomy or the *mechanics of life.*

Huxley.

Now these men were essentially skilled mechanics; one might say (using the old word) glorified master *smiths.* First, because of the wonderful refinement of the muscular, tactual, and temperature senses and of the co-ordination of hand and eye—the source, perhaps, of their greatest discoveries; and, secondly, because their view of the world was coloured by mechanical considerations, the world being to them a vast and complex piece of machinery. When we say "coloured," we should say necessarily coloured, for every man's thoughts are a product mainly of his occupation; and the life-occupation of these men was that of an investigator into the material mechanism of nature. Here we would draw attention particularly to this fact, that science in itself has grown so important to the world that we have now a new occupation to add to the old—the occupation of a professional scientist: chemist, physicist, and so forth.

The roots of modern professions and modern science.

All the old-world types of occupations persist in modern civilisation, though often in a very disguised form. We cannot get away from our ancestors. Just as a physical scientist is a smith, so is the botanist a gardener, the biologist a fisherman, farmer or shepherd, the zoologist a huntsman, the geographer a sailor, the historian a scald, the doctor a wizard or medicine-man, and the lawyer a scribe. Galileo was the master mechanic, Darwin the

The law of occupational inheritance.

master gardener, Pasteur the master shepherd—of the modern world. As for the mathematician, his material —the oldest science of all—has been drawn from such a variety of occupations that, if he vividly grasps the spirit of the history of his science (though, unfortunately, this is rarely the case), he should find himself in a very real sense the heir to all the ages, and become imbued with sympathy for all occupations. Occupational *inheritance* is as solidly grounded in the world of work as individual *heredity* in the world of body. It has been well said: "As the child is father of the man, so is the worker of all men. And it is time to cease thinking of the worker as a child to be led by the nose, but to recognise in him, according to his kind, the stuff of every occupation in the world, however highly developed—of skill, however masterly, of genius however sublime, of virtue however pure." *

Routine skill and scientific skill compared.

With respect to these two kinds of skill, how much more powerful, presuming them equally developed, is scientific skill in comparison with routine skill—how much more valuable to its possessor and also to mankind! Subsequent reflection will, we think, convince us of certain truths of deep importance: (1) that to the degree in which we can direct our skill scientifically, that is, understand the why as well as the how of certain operations or processes, to that degree our skill becomes more valuable, and more communicable to others; and (2) to that degree grows greater the joy that comes from skilled work directed by rational principles.

The lofty mission of education.

One of the chief functions of the school or college is to develop in its pupils, its students and its teachers a certain attitude to, and unquenchable desire for, organised knowledge or science, as something of great

* Professor Geddes.

value which will help us to understand more and more thoroughly the principles at the basis of our occupations.

But no sensible man really believes that the college is in any way a substitute for the practical training of the workshop, counter, or office; field, forest, fold, or farm; mine, river, sea, or air; road, rail, tent, or trench; home, parish, or hospital; market, bench, pulpit, or forum.

A college training alone will generally make a man learned in his occupation; it cannot give him common sense and matured skill.

A practical training alone will make a man skilful; but this skill tends generally to become *routine* skill, and to stop at that lower level of power.

Combine the school or college and the occupation in one harmonious education and training: alternating the concrete experience and discipline of practice with the subsequent interpretative teaching of science, and the preparatory ideals and discipline of science with the following application and testing of practice —*and this alike for pupil and for teacher*—and we get that scientific skill which is on a far higher level of power than unassisted routine.

Theory and practice indispensable to each other in the end.

For, depend upon it, humanity has not gradually developed all this vast mass of communicable experience we call theory or science without the constant and powerful stimulus, felt by even the ablest men and women, of requiring that knowledge directly or indirectly for the more efficient pursuit of their various occupations.

To a great extent for centuries the highest organised knowledge or science as applied to occupations has been the monopoly of the professional classes; yet, if there is one thing more than any other that now requires extension both to the masses and the classes and to both sexes, it is assuredly science.

We venture to believe and predict that the time will come when the most capable and earnest students in our colleges—attending in the evening, afternoon, or, perhaps (as in some foreign towns), on Sundays—will be the mature and skilled members of the population in all occupations where the value of knowledge has been experienced by them when young; mature students who will bring many of the difficult problems confronting them to college, and, in co-operation with the skilled teachers there, work out the best solution.

We would go further: there would be every advantage in having—as was often the custom among the wisest nations of antiquity—occasional courses of lectures, in our colleges, at suitable times, from the wiser and more experienced heads in the town or neighbouring region, on subjects of local, national and international or world interest and on subjects on which they have special expert knowledge in their particular occupations.

Need of constructing a chart of human life.

For science is a servant the more useful to us the more experienced and skilful we become.

The greatest in all occupations have been those who have never ceased to employ her help, and freely gave to others what they had mastered themselves. Science in its deepest sense is worthy to be, and, happily, often is, the valued companion, not merely of youth, but of age.

Of all subjects the most valuable for mankind would be generous communication of the considered and thematised experience of age upon the six great waves of conscious human life: childhood, adolescence, maturity, midlife, senescence, and eld. Among the losses continually borne by nations, few surely are greater than the loss by death of the ripe wisdom and experience of the mature and the old. Happily, some of this is indirectly preserved and shows its fruits in the succeeding generations; but what a vast mass of this valuable experience, though communicable to mankind

were the opportunity offered, sinks unuttered into the eternal silence of the grave!

To a degree of intensity and measure of extent at present undreamed, the life of the future in all occupations will be periodically punctuated from childhood to eld with deep draughts of science, spontaneously sought at the temples of the muses, rich in number and variety, and accessible to all.

"Children shall handle it: youths read it: men understand it: and old men praise it"—so prophesied Carrasco of "Don Quixote" three centuries ago; so prophesy we here of science for millions and millenia to come.

Such cultured intercourse between laity and learned is deeply reciprocal in its benefits, blessing him that gives and him that receives.

Well and truly has Sir Henry Miers* described this aspect:—

"*Education Revival.*

"One more consideration may be urged: it is not only for the properly prepared student that research calls. The inherent interest of original work as compared with routine exercises opens up possibilities in any subject, even for those whose training has been in something quite different. Persons of mature mind whose education has been purely literary, are sometimes able to take up with enthusiasm original research in science under proper guidance without going through the preliminary course; or the scientific student may become, say, an ardent historical investigator. Persons of more than undergraduate age will not desire or be able to go through the complete course of a new subject from its elementary to its final stage, but they can begin at the other end, and enter it by embarking on original

* Lately Principal of London University; now Vice-Chancellor of Manchester University.

work at once under a leader of experience. This view, though it may be highly unorthodox, is based upon my personal experience with advanced pupils, and I know it to be true.

"It is, therefore, of the greatest importance that the public should know and understand the facilities for research which are now offered by modern universities."

* * *

Peacedom and Wardom.

In peace and war alike the spade is mightier than the sword.

The financial support (state, national, regional, civic, occupational, from public or private endowment, or fee-income) given to educational societies and institutions, to schools, colleges, and universities, for the promotion and advancement of the physical sciences (or mechanology *) and their industrial applications, has been meagre and insignificant in this State in comparison with the needs of the whole commonweal, and is one of the root causes of the colossal expense of the great war.

Here is indeed a mighty sphere where sound organisation in time of peace proves itself sound organisation in the testing crisis of war; as unsoundness likewise reveals itself. Is not this wide principle indeed a differentiating characteristic of a permanent state of safe and sound national life, and a permanent state of diseased and dangerous national life, the former as *Peacedom*, the latter as *Wardom*? It is not the difference between richness and poverty in the common sense; bare money will always be a prey to the violent cupidity of individuals and nations. But it is the deep delving difference between a commonweal with all its creative powers of heart, head, and hand in sound activity, enjoying high standards, temporal and spiritual, of life and living, and the same community afflicted with disease, pride and contempt of knowledge, hardness of heart, with low standards of life and living, and with the rich and manifold talents of its

* See p. 10.

children allowed to atrophy, in large measure for lack of educational stimulus and opportunity.

No community that is highly creative in these essential features of true civilisation and culture can ever fall a prey to predatory attacks, if it do but prove true to itself. Nay, the very sight and realisation of its internal harmony, quiet confidence, and strength, were enough to daunt even the appearance of violence from any foe whatsoever, no matter what may be its relative size as measured by that least of decisive factors in war or peace, the mere quantity of its population considered irrespective of the quality.

But meagre as was the financial support—and we judge by the ratio of money expenditure to national wealth — to the material sciences, still more gravely deficient has been the support given to the sciences of life, the biological sciences ; with this even graver result that the arts and crafts dependent on the growth of knowledge in these spheres began to deteriorate and sink —agriculture in field and farm and fold, sylviculture, fishery and hygiene, those mother arts and crafts of all life human and non-human, on which all other human activities and powers whatsoever depend for sustenance.

These great central things of all life being starved of life-giving knowledge have become stunted, or even killed by the blind arrows of ignorance.

Cheapness has been our fetish—prudent and good within proper limits,—quantity of manufactured things our idol, and thus the babes wither away through parental ignorance and agriculture droops its head. What are the remedies?

They are manifold. We cannot pretend to suggest even all the essential factors, for these must depend largely upon bold experiment and cautious experience.

But certain things appear to be necessary, if not sufficient. First and last there must be throughout a new spirit, a new attitude to biological science, a spirit of humble reverence, a spirit of faith in its power to inspire and organise, to create and heal ; a spirit blowing as a strong and steady breeze through all parts of the Commonweal that the means shall be found for this most urgent

and indispensable instrument of all vital activities—the ample endowment of the great groups of biological sciences in our schools, colleges, and universities, and therewith corresponding facilities for technical training of all grades of skill, from humblest to highest, in all the arts and crafts of life—agriculture, horticulture, sylviculture, pisciculture, and greatest of all, the hygiene of the folk.

* * *

Of set purpose have we striven in this work to attain so far as is given unto us the elevation and breadth of a cosmopolitan view of things secular and a cosmic vision of things spiritual. For are not all men brothers and women sisters? But not on this lofty plane alone to dwell has been our object: else had this book never been conceived. A love of our Native Land, passionate and undying, dwells at the centre of our heart. From Her radiate all our hopes and fears to the ends of the world; to Her they return, broadened, we trust, deepened, enriched and strengthened. From Her dear soil sprang our ancestors and ourself in ancient line: to Her dear soil may our body return at GOD'S good time in deathless dust.

* * *

They criticise best who love best. May the plain words of universal criticism—for the whole world has sinned together—scattered throughout our book sink deeply into the hearts of our own countrymen.

Fas est et ab hoste doceri.

Often have we asked ourselves "What is our deadly national sin?" Many replies have we made, but that which recurs most frequently coincides with the verdict of foreign criticism, alike friendly and hostile. It lies therefore probably nearest the heart of the unattainable truth. It is *Pride*. Pride so deep that we rarely know of its existence: so decked in a thousand alluring and deceitful forms that we fail to recognise it when we meet it in ourselves or in our countrymen. But of all its forms the deadliest is

Pride the deadly sin of England.

an obstinate contempt for science as knowledge that is organised, systematised and ordered, and hence a contempt of national education. Whence comes this?

From deeper sources than we can ourselves as English fathom. Still—again with the help of our wisest critics alike domestic and foreign, friend and foe—we must venture on some interpretation, briefly outlined, probably even feeble and obscure, for the diagnosis is complex. But the very feebleness and obscurity of our words prove the truth and sincerity of this our confession of national sin.

"Cuique in sua arte credendum."

Since England became a country predominantly based upon coal, mechanical power and urbanised industry, no great man—we speak not of the living, whom the living can not adequately judge—has been born of her in the realm of *world thought*, save one, Darwin. Yet the native population of this State has equalled long the combined Englands of many generations past and precedent to this coal and iron age. The one single exception gives the clue to the solution. Darwin was the last fruit of a preceding generation to whom nature was life even more than mechanism; himself *a great thinking Breeder and Gardener, he saw things in the steady and unerring light of the science of life, whose root is organisation.*

So profound and penetrating, so subtle and magical are the relations between man and nature that the type and quality of our dominant national reliance upon her inexhaustible forces constrains and colours and guides all our master-thoughts, and spreads with deep unconsciousness to our polity, civic, national and international. Thus have we become mesmerised by the machine process. Machinery has too commonly inspired our polity, in all its ramifications, secular and sacred. The incarnation of the thing as an idol in the word literally made flesh is the root of our sin.

What then would the science and crafts of life add unto us? *Life is the central mediator in nature between mechanisms and humanity.* The more we ignore this simple truth, the deeper we sink in ignorance, sin and futilities. The root of the life science is the spirit of organisation; as the organs are the centres of life. It is

again the old truth of the Tree of Knowledge growing by the Tree of Life. A great organiser is one who has absorbed into his soul and body the root principles and crafts of organic nature.

The decay of agriculture in this our dear land and our subservience to material and mechanical thought and activities are thus at the root of our national sin: the pride that springs from dense ignorance of organic nature and unbalanced reliance on machinery and its soul.

The man-machine has revolted against the man-organic and enslaved him.

Let England take this lesson steadily, tenaciously, and deeply to her heart, and her sons and daughters may yet sing again as in the City of God. The still existing predominance of *peasant* conservative thought in the polity of Germany, with her command of mechanism, has been the prime fount of her strength of *organisation*.

But in regaining the old, let England not despise in turn that which yet has been her stay, if also, unbalanced, her doom: the material energy of nature. For nature is a web in which every strand may lead in humble souls to all others.

Yet Man is not mechanical only; nor mechanical and living only; he is supremely Man and therefore *human*. A trinity in unity is Man, at once a mechanism, an organism, and a humanism: in each of us dwells a man-machine, a man-organic, and a man-human.

Happily this England of ours has not forgotten, in its sins, the truth that is supreme in all enduring polity, *the humanity of man*. Has not Germany, her mighty adversary, too commonly neglected this in government, university, commerce, war, and public opinion? For if mechanism is fundamental, and organism central, so assuredly is humanism supreme in man.

The cardinal principles of all enduring government derive from these basal facts of Nature and Man.

Government must be based on *machinery*, alike subjective in the mechanical soul of man, and objective in the mechanical body of man, and likewise in the outer world of Nature, in soul and body.

Government must be centred in *organisation*, alike

subjective in the organic soul of man (man as animal) and objective in his organic body, and likewise in the outer world of Nature as organic soul and body.

Finally Government must rise to *administration*, which is at root "*the ministering unto*," alike in the human soul of man and his human body; as also in the outer world of Nature, with its human souls and bodies.

In Government then, machinery, in knowledge and action, is fundamental; organisation, in knowledge and in action, is central; and administration, alike in knowledge and in action, is supreme.

The corresponding sciences are mechanics (mechanology); biology; and sociology.

The corresponding arts are manual and machine craft; field, forest, fold and fish craft; and statecraft. Education must embrace all these sciences and arts in miniature model for the complete life, living and livelihood of every citizen.

* * *

The Growth and Function of Language in Life and Rule.

> "*Take physic, Pomp;*
> *Expose thyself to feel what wretches feel,*
> *That thou mayst shake the superflux to them,*
> *And show the heavens more just.*"
> "KING LEAR."

Of all instruments or forms of expression created by man for the embodiment of the social inheritance of truth, the instrument of language, spoken or written, is the most potent, universal, and adaptable in the balancing of stability of form with elasticity of substance and elasticity of form with stability of substance.

Of all the arts ministering to the supreme art of living and ruling, this of language is, by common consent of nations, the greatest. But this art of language may range from empty echo to expression compact of life's experience.

Those fields of his experience whether of matter, of life or of humanity, which supplied the raw stuff out of

which the creative spirit of man fashioned each word artistically must be tilled again by each individual to bring forth the fruit of understanding and mastery of that word.

Thus alone, in the sweat of his brow as humble servant of nature, can man become her just master and noble lover; thus alone can the old word become new flesh, and the new flesh revitalise the dying word.

The flowers of summer live fully for those alone who have laboured in the garden; the biting frost of winter for those alone who have felt its fangs.

Without experience, no fruit. Flowers and frost and all things real are but counterfeit copies of experience for those that know them only by name.

Knowledge that is but learning is a depressing burden where life's needs have not grounded it; authority is but a blind despot where exercised without personal experience in the ruler of the life of the ruled; custom, not inspiring but petrifying into law, weighs heavy as death when the ethical spirit that created it is vanished.

An emperor of Japan is told that his people are feeling the pinch of famine; he foregoes food and knows the tooth of famine.

Another is told that his people shiver with the keen frost; he removes his sleeping robes on a winter's night and knows the pain of cold. In like spirit acted Marcus Aurelius and Hadrian.

To know famine we must be famishing; to know anything, that very thing we must become.

Thus interpreted in the light of real experience and with due humility, this vast social inheritance of truth, whose chief form of expression is language, shines with a majesty of spirit that inspires man with confidence in her authority as a guide, and with a benignity of mien that invites freedom of individual development.

Truth, that Alma Mater, loves her children and would teach them as a gentle mother only can teach her babes.

Her spirit, inimitable, universal and eternal, is catholic in its appeal; her form changes ceaselessly like that of mother earth, yet so relatively permanent is this form that the expression of the greatest and freest creative

thought of the man freest and greatest changes her form no more deeply than the scratches of the plough change the face of mother earth itself.

Here in the social inheritance of truth, the supreme *Universitas*,* is a world where spiritual authority guides with hands living, loving and unseen the steps of all; and as she freely gives so she freely receives: for each step taken with her aid re-echoes in her spirit, but an echo which is no mere repetition; for thereof she fashions new smiles that enrich the beauty of her majestic face for generations of her children still to come.

The true university should be thus man's organon of truth whereby he is enabled to profit by his own experience and by the experience of his fellow men, living and dead; whereby alone he can be saved from the suffering and sorrow that are the consequences inherent in ignorance and folly.

The true university should be the spiritual link binding one generation to another in all classes and in all climes.

* * *

Government as Spiritual.

So far for government temporal; what of government spiritual? Highest problems of all, yet in these times least considered. Here it is enough, perhaps, to suggest that, as man is a spiritual being as well as a temporal, to each knowledge and craft secular must be conjoined its knowledge and craft spiritual: to the mechanical the æsthetic, to the biological the psychological, to the political the ethical. Thus can government as Statecraft and Churchcraft represent, co-operate with and guide the man complete, individual and social, in body, soul and spirit.

* Originally, a corporation (the body of students); then the spirit of universal knowledge uniting them: thus in widest sense, all men and women are students of a world university.

Words.

Every word of language has its temporal elements, mechanical, organic and human; and its spiritual elements, ethical, psychic, and æsthetic.

* * *

So much for the spirit we would plead for in the national attitude to organised knowledge.

What of the practical programme?

*The Regional University.**

We venture to suggest the broad lines of a programme.

The division of the State into provinces or regions (somewhat corresponding to the old English Heptarchy), reuniting the too long divorced interests that are common to urban civilisation and the surrounding rural culture: with modified parliamentary government of two chambers, with geographical taxation in the lower and guild taxation in the upper chamber; graduation of fees from zero to such amount as each social stratum can reasonably bear for education above primary (up to about twelve)—an important element, this, of educational finance as the basis of a high degree of independent development and growth in the government of each school and college—with a reasonable contribution from the State parliament to stimulate regional support and balance regional measures of control.

In each self-governing region should be at least one well equipped university, the natural leader of a rich hierarchy of schools primary, secondary (alike professional and technical, industrial, commercial and agricultural,—pisciculturaland sylvicultural also, where the regional needs demand such), and tertiary (embracing a still higher ramification of occupations); and organised for both sexes of all ages from birth to death.

The university should be self-governed with a preponderance of teachers in the highest court, but contain-

* Also see Chaps. X. and XVI.

ing representatives of the affiliated schools and colleges of all grades; also of the regional guilds (employers and employees) and of the public bodies aiding its finance, state, national, and regional. The two ancient universities should also have representatives.

In the sciences and arts of life women would naturally come to occupy a specially distinguished position, particularly in those dealing with the dynamic and physiological aspects as contrasted with the statical and anatomical studies too strongly emphasised by the male scientist.

It would be of cardinal importance that arrangements with the regional guilds (agricultural, industrial, and so forth) should be developed under the inspiration and guidance of the regional university by which both teachers and taught in all applied branches would have facilities for practical experience of occupations interwoven periodically with their academic studies.

The danger of overcrowding any group of occupations would be met by the granting of certificates under the co-operation of the particular guild and the educational authorities.*

Just pride in the history and development of the regional unit (urban and rural) should be cultivated by infusing this spirit into the academic education and occupational training under university guidance; the supreme object being, not bread-winning preparation (essential as that is) nor its instrument, high technical skill (good as that is too), nor learning (necessary too), but the flowering of a human being in holiness, truth and beauty, in health of body and strength of character, with a passion for service and the skill to serve with that special genius which God has given to each, a citizen worthy of his regional home and university, his native country, his continent and humanity—a true world citizen.

* Including, of course, among women's occupations, domestic service. In sound training, reasonable conditions of labour, technical certification, and higher wages might well be found a solution of problems of the domestic and nursing occupations.

Artistic Skill.

We have now briefly touched on two kinds of skill —*routine* skill and *scientific* skill. There is at least one other fundamental variety, which may be appropriately named *artistic* or *æsthetic* skill. Education cannot give it, though education may aid or thwart its development. In attempting to deal with this highest, and apparently final form of skill, one cannot hope wholly to escape the charge of obscurity. For it is a form whose essential characteristic is that its products can with ease be recognised by sense and feeling, but with difficulty, if at all, described in language.

The supreme type of skill.

Artistic skill has points of contact with both the other forms of skill. To *routine* skill it is allied in this, that it is incommunicable by language to others; but for a widely different reason—since artistic skill, being the very expression of the personality, is individual and unique, and above the reach of language, therefore, which deals essentially with the generic and common. *Routine* skill, moreover, is communicable to a limited extent, if not by language, yet by sheer imitation; and its products can be imitated (by use of one or more of the senses—sight, sound, taste, smell, temperature,* touch or muscular sense); while artistic skill is wholly incommunicable, and its genuine products are truly inimitable.

* This most vital, primitive and universal of all senses, has been strangely neglected in philosophy and education. Without this no other sense could function and life would cease. Its physiological correlative is so fine and widespread as to be indistinguishable yet by the microscope; it is the only sense alike internal and external. Its very ubiquity has contributed to its neglect.

Every occupation has its vocation.

At the same time, by its very creativeness and originality, the products of this *artistic* skill are constantly giving rise to new truths in science and to new terms in language, the common vehicle of science. Like routine skill, it requires special occupational practice for its development—if the germs of such power are there at birth.

Every man has his mission.

But such practice alone is not sufficient. For it is allied to *scientific* skill in that the possibility of its highest development rests on the winning, generally by long continued effort (whether at school, college, or otherwise), of a clear consciousness of the great principles that underlie similar past achievements. Yet it transcends logic, language, principle, or science in its *creative uniqueness* and its consequent absolute incommunicability by language or by imitation. Here in truth the *occupation*, secular and natural, rises into a *vocation*, spiritual and supernatural.

However deeply analysis may go, in the artistic skill and its product there ever remains something beyond and above analysis, a superhuman element.

The hierarchy of types of skill.

Routine, *scientific*, and *artistic* skill form an *ascending* scale of human judgment, power and activity, wherein routine skill is fundamental, scientific skill central, and artistic skill supreme.

Every babe has its measure of occupational genius.

Illogical artlessness, logical artifice, and true art neither logical nor illogical but the supreme expression of life—so, too, we may picture these three types.

For true art, in whatever occupation it may be developed, is the final and highest expression of our whole life:—character and experience, powers and

personality—for mingled good and evil. It matters not whether the artist be a handicraftsman or a headcraftsman, or both;* porter, postman, navigator, vanboy, or nomad: airman, miner, bargee or mariner: mechanic, typist, joiner, physicist or astronomer: shipwright or builder: tailor, weaver or milliner: decorator or designer: gardener, woodman, shepherd, breeder, farmer or groom: fisherman or biologist: midwife, cook, surgeon or doctor: scavenger, huntsman, warrior, pathologist or gravedigger: shopkeeper, pawnbroker, merchant or banker: charwoman, domestic, housekeeper or parent: lawyer, politician, administrator, diplomatist or statesman: "beggar or king": criminal, alienist or judge: journalist, clerk or cleric: prophet, pope, saint or hero: philosopher, pupil, teacher or author: architect, sculptor, painter, actor or musician: "lunatic, lover or poet": it matters not.

It is by artistic skill that each one, however humble or lofty his lifework, can create from an honest, breadwinning *occupation* a spiritual background by which it is glorified into a true *vocation*, something to which each is divinely called.

Above and beyond their scientific skill, all great scientists possess richly this æsthetic skill: the very portion, indeed, of their experience and experimenting which they themselves never fully understand, though the source of their greatest discoveries; and which, essentially incommunicable, necessarily dies with the possessor.

All of us exhibit this *æsthetic* skill in the art of all arts, the art of living and character building.

The teacher, as artist, himself shows his highest skill when his stimulus succeeds in calling forth and aiding

* In strict analysis all craft, all human action, all experience is both. For to even the subtlest feeling and thought corresponds its nervous correlate and its inconceivably minute muscular accompaniment. But for practical purposes occupations using visible and massive muscles are named manual; those predominantly using invisible and minute muscles are named mental.

in the development not of talent only but of that genius which each of his pupils has, in a greater or less degree, uniquely peculiar to himself, and in whose fullest life-long development each may find an inexhaustible fount of quiet happiness, a veritable elixir of life. *For talent is of all: genius is of each.*

"Thou hast multiplied the nation and not increased the joy." (*Isaiah* ix. 13.)

It is, surely, one of the fundamental weaknesses of modern education that, from a false economy and other motives, we are compelled to educate our pupils in such large groups and by methods too similar. The apparently inevitable result is, in general, the stunting of valuable variations in individuality, and the production of too large numbers of individuals with closely similar powers. The economic consequences are—loss of rich productive capacity, unduly severe competition for a livelihood, cheapness of remuneration below a fair standard of living, the grinding of the faces of the poor, and subsequent degradation. Such things violently react in the end against the common weal, and lead in extreme cases to riots, revolutions and wars. Below the present world crisis have surged similar causes, and each sane statesman will do well to look with insight, courage, and foresight into the unexplored recesses of his own land, by personal investigation as all truly great leaders have ever done, from Hadrian in ancient to Peter the Great in modern times.

With the development, on the other hand, of individuality by a mode of organisation that deals with large numbers of comparatively small groups, numberless varieties of craftsmen (including hand-workers and head-workers) would result: competition would become reasonable, in one and the same sphere: production would rise in quality: and the necessarily varied standards of living would become each steadily uplifted. The common is cheap and the rare is dear; and nothing is so rare as fully developed individuality. Within limits, upper and lower, the quality and value of things

—goods, jewels, plants, animals, man, cities, regions, nations, states—tend to increase as their number and magnitude tend to decrease.

Education is united power and stability; ignorance begets weakness and rebellion. The long future is to those cities, regions, nations, races and states that recognise and apply betimes these great overruling facts. A tramp may flourish on day to day outlook: a hawker may profit by weekly prevision: a shopkeeper may be satisfied with monthly foresight: a farmer must look to the years: a forester will face a generation: but an educational statesman will design for a century: a poet be inspired with the vision of millenia: and a prophet see in everything the eternal.

There is an art preceding science and an art succeeding science, and the deepest science attempts in vain to overtake the highest art; the secret cannot be yielded up, for it is unique and incommunicable. We say the *highest* art; for, when science has searched out the secret of the achieved, art has already advanced a new stage forward. Thus will it ever be; in the last resort the general can never explain the individual.

* * *

It will now be seen why we related the little story of Lord Mansfield's advice to the farmer at the beginning of the chapter. Perhaps, without straining the analogy unduly, we may say that the farmer's decisions would partake of the nature of *routine skill;* throughout his life he had been accustomed to make decisions without in general analysing his grounds. As a product of routine skill, these grounds would be incommunicable, being built on his character and previous experience; or, if he ventured on stating grounds, they would in general be incorrect. The language of such characters lies not in words but in acts.

In sharp contrast, the decisions of the judge on the

bench would be the products of *scientific* skill and the grounds thereof communicable.

But may we not safely venture to affirm that even the trained judge—if not in the law court, at least in the complexer affairs of life itself—would be compelled at times to give decisions in the spirit of the advice he gave the farmer, in that he too would be equally unable to state correctly his grounds? But such decisions, in the case of the judge, would be the product of *artistic skill*, and would probably express his logically trained powers in their very hightest sense—*the power of the artist*.

ADDENDUM:

On page 205 we have emphasised the community of interests demanding renewal between town and country life. Sir George Fordham, referring to the rapid growth of small county boroughs, justly and illuminatingly characterises this process of modern English policy as the "evisceration" of the smaller county areas (Letter to the *The Times*, 19th March, 1914).

Typical of the national attitude to agricultural science is the fact that "not one single agricultural scientist" was appointed a member of the government Committee to inquire into "the position occupied by natural science in the educational system of Great Britain, and to advise what measures are needed to promote its study, to the advancement of our industries." [See Christopher Turnor, Letter to *The Times*, 31st August, 1916.] It should, however, be fairly added that it is proposed to establish national engineering-agricultural colleges.

CHAPTER XIII

THE DOMINION OF DREAMS

"Man goeth forth to his work and to his labour—until the evening."
PSALMS.

WE have thus rapidly sketched the bare outline of the chief points in the Evolution of Universities, with some suggestions as to future developments, and some inquiry into the significance of ancient and modern thought, Western and Eastern.

Some of the stars of ancient regions have disappeared, but in other forms their universities may rise again after the long night of darkness. Babylon, Nineveh, or some other great city may well arise in Mesopotamia when the present gigantic irrigation scheme with its subsequent agricultural and industrial fruits has been completed. For a university to unite hebraic culture in Jerusalem a scheme was rapidly maturing before the war.

We have already mentioned the lofty historical *rôle* played by the Jewish race and nation as transmitting mediators of culture and civilisation through- Zionism and Judaism.
out the earth from time immemorial. Could this but be realised, and reciprocal sympathy grow therefrom, nations would even compete for the possession of jewish citizens. Not least of their gifts has been their steady opposition to jingoism, chauvinism, and other forms of false patriotism. Their very presence in a state is a powerful stimulus to sane statesmanship to widen the ideal of patriotism into

the co-operative spirit of all good citizens forming the state, whatever their race and nationality.

The Diaspora, that scattering of the Jews over all lands, has brought bad things and good, but is not this true of all historical events? The foundation of a hebraic university at Jerusalem may well become a mighty and enduring organ and instrument for the general welfare of mankind as well as for the Jews themselves. No university, perhaps, would so nearly approach the true functions of that for which we plead in this work, a World University: for none, we believe, would so harmoniously unite accuracy of scholarship, width of knowledge, practical statesmanship, and impartiality of vision.*

Ragusa, too, may flourish again: Benares, Tunis, Ispahan, Carthage, Trebizond, and others. Brilliant stars now shining may wax more resplendent: new stars may swim within our ken.

Fact and Myth.

There is a new discovery of the world to be made, new voyages of Columbus, both within the soul of man himself and outwards and into great Mother Earth. New revelations of the one ever bring correspondingly great revelations of the other. The spirit of co-operation between East and West, and even between the cities and nations of the West themselves, has been hitherto in the main unconscious, indirect, and sporadic. The day is dawning when an era of deliberate, continuous, fully conscious, and world-wide co-operation will commence, intimate and penetrating, between all the great regions and religions of the world, with deepening and widening, enriching and uplifting of the heart of man as never perhaps before.

Faith will again arise in the prophet's dream, and

* See H. Sacher, "A Hebrew University for Jerusalem." (Published by *The Zionist*, 4, King's Bench Walk, Temple, London, E.C. Price, 3*d.* post free.)

world-wide dramas therefrom be created matching that dream in slow patience and ultimate majesty.

Science of late has learned humility; it has become the discovery of analogies, and now speaks only in parables.

It has been drily remarked that the same differential equations cover the most diversified phenomena. Our vaunted scientific explanations of the Universe are but working models of bounded and selected domains, thinking machines to economise thought, conceptual shorthand résumés of a finite experience.

Reborn in wonder new, Man stands again confounded in the presence of the inscrutable ALL.

In this reawakened sense of reverent sublimity, the spirit, despised a century long, of all great religion, philosophy and art—the mythopœic—is found anew to create at once the deepest and richest and highest of all forms of expression and inspiration of man's endless struggles,—endless, and so in a pathetic sense, eternally futile, yet also increasingly and eternally fertile,—to describe and interpret and master his marvellous multiverse in the light of a universe.

For fact and myth are ultimately indissoluble: that the one can be many and the many one is the unique and supreme paradox of truth, ever irreducible by man.

But of his fate man grows increasing master, the more loyal his service to fact, the more faithful his reverence for myth.

For fact is the commonsense reflection in the soul of the plain man's experience and experiment with nature's nature and his own; and myth is the spiritual dynamic that inspires every man at his highest, and the highest of all men—the demiurge,—pioneer and protagonist, poet and artist, teacher and preacher, philosopher and statesman, priest and prophet, hero and saint.

From amongst the myriad moulds of reality, it is the evolving myth, enshrining the time-spirit of each successive civilisation, man's own corporate creation, that unseen, unfelt, and omnipotent, ultimately directs each individual

to his choice, prince or peasant, mother or maiden. But within that mould man is free to choose his own among its countless facets.

The two supreme perils of humanity are the Scylla of materialism, the dominance of mammon, and the Charybdis of superstition, the corruption of the spirit. To steer his barque of civilisation between these perils is the eternal task and struggle of man—one of the ancient riddles of the sphinx.

By renunciation of the intoxicating passion to interpret and master the All, and by rigorous resolution to gradual mastery of expanding but finite fields of explanation and activity whose size it is in his power to restrain within a constantly growing communal synthesis—only thus can man, thinker and doer, contemplator and creator, avoid beating his baffled wings in too rare an atmosphere of reality.

For Man may drift aimlessly on the boundless ocean of existence.

Or, individually and in groups, Man may form large ideals whose realisation may change the fate of nations and the face of mother-earth.

Between these extreme poles of life, now baffled and beaten, now clear and victorious, Man in general oscillates.

Men and cities, nations and civilisations, may be fruitfully judged from this lofty standpoint of history.

As the movements of Man approach the blind drift of dust, his history becomes obscured into chaos. As his movements approach the majestic flow of a mighty river to the ocean, under the inscrutable impulse of grand and widely embraced ideals, his history becomes illumined into cosmos.

Not science nor art: nor religion, nor philosophy: nor statecraft nor priestcraft: family craft nor folk craft: not field nor fold nor fish nor forest craft: nor manual nor machine craft: nor any art or craft of man, creating his culture and satisfying his needs, can exist long and fruitfully without the creation and pursuit of ideals and the

*construction of Eutopias *—the re-birth, in form fitting each nascent civilisation, of the great myth.*

Is the world approaching a period when the present blind drift of "sensate motes on the crumbling crust of the earth" will evolve into an orderly and progressive development under the mighty sway of the prophetic spirit of ideals yet to be?

Will Love reveal anew to the prophet the deep rhythms of all life—Love, the sublime force with which man cannot trifle, the electric flash that quickens or kills, the chemical affinities indissoluble yet volatile, the creative fires by which man's soul is warmed or scorched, the music of enchantment, the light of life?

* * *

Yea: some great Myth, the flaming reunion of the spiritual trinity of goodness, truth and beauty with the temporal trinity of comradeship, health and wealth, in one glorious vision of life and love abundant for each and all, is even now dawning, destined to mould the new world as its forerunners have the old.

Its inspiration will be the living spirit of these grand myths of the past, founded on the rock of the eternal needs of man's nature and spirit, alike human, organic and material, alike super-material, super-organic and super-human. With their once flaming fires, now grown cold, by their once thrilling voices, now sunk to murmurs, in their once glorious light, now waxed dim, all things great have been by man created.

Wafted from the bosom of Eternity, myth, great or small, is already a seed in the mighty womb of this real world of space and time the moment it is felt; grows big in that womb the moment it is thought; leaps in that womb the moment it is imagined; is a lusty babe the

* Not to be confused with Utopias. Eutopias are imaginative reconstructions of definite regions in the light of lofty ideals and are substantially realisable; Utopias are stimulating but imaginary creations, nowhere realisable.

moment it is willed: a stripling ready to expand into a giant, the moment it is communicated to a fellow-soul in any concrete form or shape.

And thus, by union of great and small, will the great myth arise for all.

World-wide will it be, compassing flashing East and sombre West; rich to give scope to each talent, man's, woman's or child's; inspiring to mould the full development of those talents in synergic harmony with its own vast genius; above all with sublime prophetic foresight of the spiritual yearnings of the centuries to come, bestowing on all the noble freedom that spiritual law, accepted with willing reverence, alone can bestow; yet with a great sanity that realises that the birth of an ideal comes only with travail and labour matching its majesty and its truth; that its fruitful marriage with reality is a perennial sacrifice based on courage, with courage based on love; and that its offspring, the child of its maturity, the father of the times that will come after, is fated to be the devourer of its parent, as itself was the devourer of its own. But the spirit of each dead past lives on.*

"Man goeth forth to his work and to his labour—until the evening."

* Science flows into the lifeblood of language. See pp. 132, 133.

CHAPTER XIV

STATECRAFT: A. PHILOSOPHICAL PRINCIPLES: A SYNTHESIS OF CERTAIN PLATONIC, ARISTOTELIAN AND VEDANTIC IDEALS AND IDEAS

The Morality of the Plain Man and the Morality of Statecraft.

THE responsibility of the university to the community in respect of its teaching on the conduct of life has, happily, never wholly been lost sight of. Yet the existence of the present world war is ample evidence that in this, its supreme function, the universities of the world have been less influential upon the evolution of statesmanship and diplomacy than might reasonably have been expected of them by the plain citizen.

We propose to lay bare some at least of the roots of human conflict, to indicate certain fundamental difficulties attaching to the promulgation of principles of conduct in their most influential sphere, the sphere of statecraft, and simultaneously place in reasonably clear light the kind of interpretation we would wish to be drawn from the many general principles we have ourselves ventured to put forward in this essay.

* * *

Conduct.

" Unstable as water thou shalt not excel. Rigid as iron the furnace shall melt thee. In the infinite Tree of Knowledge alone canst thou find wise image for the guidance

of thy Life. For in that magical Tree live all trees from the yielding but unshaken mountain ash through the vast spreading banyan to the rugged and unyielding oak."

Without principles man is an opportunist; with rigid principles man is a doctrinaire.

Principles and practice.

Opportunism and doctrinairism are thus the two extreme types of conduct; so extreme indeed that no man exists wholly an opportunist or wholly a doctrinaire.

But as a man's principles become more fluid he nears opportunism; as they harden he nears doctrinairism.

Every environment has its dominant tradition and underlying principles.

Without varied environment no man grows many-sided.

Man can no more live without imbibing the dominant traditions, in sentiments and dogmas, of the particular environment in which he is educated and trained than he can live without breathing.

Either he is a servant of tradition and knows it not.

Or, again, he is servant to tradition and knows it, recognising and obeying the underlying principles.

Or, finally, he is master of tradition.

Man commonly combines all three attitudes in his life, now falling into one, now another, now a third. But there are nevertheless five outstanding types of character sharply contrasted with the normal: the *opportunist*, the *doctrinaire*, the *martyr*, the *fanatic*, and the *magnanimous* man.

The opportunist; the doctrinaire; the martyr; the fanatic; and the magnanimous man.

As merely servant to tradition and knowing it not in its principles, man is a mere *opportunist*, blown hither and thither by every breeze, the slave of every despot he meets, and the unsuspicious tool of every knave, whether in the realm of his own passions within or the world of men without.

As merely servant to tradition and obeying obstinately and always its underlying principles or

theory as a fixed and rigid law, man is a *doctrinaire*, staunch and tenacious may be as the rugged oak, but generally overwhelmed to his own great surprise and against his will by a crisis to which his rigid structure forbids his adaptability: no true martyr or saint but in the end a fool.

As master, not servant of tradition and theory, man has two main courses open.

He may clearly recognise that his theory, however comprehensive and noble, will grow in his consciousness as each new case or precedent comes along, correcting it, enriching it, and widening its scope.

Mono-ideism of the martyr.

With this clear and humble yet strength-giving spirit he deliberately devotes his life to the promulgation of his belief and courageously strives to carry it out in practice, accepting calmly the reverses and thankful for successes.

In this way he will gradually come to recognise the inevitable practical limitations of the most well-based and comprehensive theory (or system of principles), as well as its great creative force in conduct, and the weakness of tradition as well as its strength.

He will, in a word, reap the fruits of a system of evolving principles clearly and firmly held and also its disappointments.

Such a man is not an academic logician, but a logician in action; powerful to persuade; hated and feared but respected by his opponents; admired by his friends; often achieving great things; but apt to be narrow in sympathy, missing the rich abundance of life, often overwhelmed too, like the opportunist and the doctrinaire, by any great crisis in his own life or in the life of his times. Such is the *martyr* of life.

Of such natures are the tragic heroes of life and of art whose entire denomination by a single noble principle or single system of such to which they have surrendered their souls and their lives involves their temporal ruin

while revealing a majestic spiritual grandeur. The potential infinitude of a noble principle may be thus affirmed.

"Pereat vita: floreat veritas."

But not in vain the sacrifice! Dying heroically upon the cross in the person that shall affirm it, a noble principle sweats blood whose fruitful seed reincarnates itself a millionfold. Once more the root significance of sacrifice is revealed in the truth *made sacred* by the blood of its martyrs. In the Lord's Vineyard are many labourers. Once more the great ideas and ideals of the race reveal to us the divinity, alike vedantic and platonic, enshrined within their core, now expanding to awe-inspiring grandeur, now evanescing in the periodic *twilight of the gods*.

* * *

The fanatic.

Mono-ideism, as the absolute supremacy of a false principle or phantom, may also bring unparalleled cruelty and horror upon the world as of the bursting forth of a great lunatic asylum into statesmanship. Witness the history in Western lands of the torture and the burning of heretics, alike protestant and catholic.

At all times of man's history, individual and social alike, such warnings are necessary. Ideas become gods when they serve men as their masters, demons when men serve them as slaves. Yoke them to the chariot of life in pairs: drive them softly, and man goes far and safe: love with reverence, justice with compassion, rights with duties, humility with faith, wisdom with simplicity, freedom with discipline, elasticity with plasticity, firmness with gentleness, command with obedience, courage with prudence, national with international, democracy with aristocracy, order with progress, past with future, romance with reality, equality with inequality, ambition with sanity, labour with capital, empire with limits, emulation with co-operation, individualism with

communism, joy with sorrow, history with prophesy, genius with common-sense, and life with death.

* * *

In all languages we find certain deeply similar conceptions of the highest characters.

The magnanimous man, the supreme artist, master and lover of life.

In India it is *mahātmā:* in Greek *megalopsuchos:* in French *grande âme:* in German *seelengross:* in Latin *magnanimus:* and in English *great-souled.*

In all of these is the conception of infinite and rhythmical elasticity of spirit, contracting to the arboreal and vegetable subconsciousness of sleep at the one extreme, expanding to a momentary and ecstatic partnership with the Divinity at the other. Or, again, in its range from the revelation of life's evolution at its majesty to the involution of the soul and body in the ashen dust of death, at once psychic and corporeal, an inscrutable germ enfolding the triune individuality of the magic of matter, the miracle of life, and the mystery of man. Germ within germ *ad infinitum*, unapproachable by sense or instrument of sense because truly infinitesimal, waxing with man, waning with man, and in each stage immortally pregnant with man.

The thesis of the nineteenth century was dominantly the conception of evolution. The forecast may be hazarded that the dominant thesis of the twentieth century will be the completion of the large conception of man and his universe by involution as well as by evolution, each periodical in nature.

Ex nihilo nihil fit.

The supreme master of life is at once a philosopher in theory and science, a hero and statesman in conduct, a lover of life, an artist in skill. He interprets history by the direct light of life, and life by the reflected light of history, Nature's history, Man's history, and His own. The magnanimous man is at once a gentleman and a genius: each ceaselessly developing the other and recognising its very self, either

The golden mean of the magnanimous man at once a gentleman and a genius.

in trial or in triumph, in the secret heart of its deadliest enemy.

He knows that no theory nor principle, nor system of theories or principles is final; that no conduct, neither war nor peace, no life whether of individual, family, business, institution, city, or nation, can be conducted wisely and continuously on any system whatsoever of abstract principles. He knows that theory is an indispensable servant, but an unreliable master, first autocratic then despotic, and finally tyrannical. He knows, too, that false on all occasions is the theory that "*there is no theory*," itself so famous and disastrous a theory in the history of war.

He knows that false on many occasions is even the most thoughtful of theories; and therefore that any theory or principle nobly used appears, paradoxical as it may be, to reach its culminating significance for the user at the moment when some fresh experience shows clearly and decisively that there are occasions amidst the many surprises of life when the theory or principle must even be reversed in practice.*

Thus war *à l'outrance* (logically this would involve the amazonian arming of women and the slaughter of babes on both sides, the latter partly to cut off new warriors for the enemy and to economise in food for the other side!) defeats itself. For no idea is adequate to all reality. By the very constitution of the universe, every idea pushed to extremes creates at length the counter idea. An Homeric battle of Idea-gods and Idea-goddesses results with victory to the golden mean meted out on the balance of Zeus under the dread behests of triple Fates, behind whom stand and work divine mysteries within mysteries endlessly.

Only in the freely creating person and his spontaneous deed, a duality in unity, can all such paradoxes be resolved. More profoundly, only in the trinity in

* As Justice Holmes, a great judge of the U.S. Supreme Court, says, "*We must learn to transcend our convictions.*"

unity of dream and deed and person, can opposing truths, contending for mastery, be reconciled. Therein alone become finally synthesised the thesis and its antithesis.

Here arise the supreme types of tragedy where noble and equal ideals struggle for realisation, though apparently opposed diametrically in spirit, as with an Antigone in hellenic and with Christ in hebraic story. In war above all.

From that critical moment the theory or principle appears actually to diminish in importance as a consciously used tool, and to sink finally into that dimmer region of the mind known as the subconscious, whose extreme stage is commonly known as Unconsciousness.

Here its spirit is more likely to contribute to a sane balance of judgment, at once conservative of past values and creative of values future, that adapts itself courageously at each moment in the great adventure of life to the demands of new experience amidst a new environment.

Sound design with beautiful achievement is the fruit of the happy marriage of the creative artist with his material.

"Be Thou a Light unto my path and a Lamp unto my feet."

Thus, too, sound judgment and successful action are the fruit of happy marriage of general principle with the particular circumstance. Just as the father in union with the mother creates the child, and then the child recreates the father in character, so character creates the principle in union with the circumstance, and then the principle recreates the character. In beginning an action, said Napoleon, "*Je suis comme une fille qui accouche.*"

The soundness of action lies in the happy choice of noble principle happily applied to particular circumstance.

Time, place and other circumstances must be rightly chosen for the right application of right principle.

Principles are the grand beacons ahead for lighting up our path; facts are the homely lanterns guiding our feet.

Devoid of principle, particular action has no meaning: divested of particular action, principle has no sense; together only have they significance.

Statesmanship involves sympathetic co-operation alike with great principles and great men. Man is at his strongest when he both evokes the highest principle in himself and the highest principle in others.

For though the form of an experience never repeats itself, the spirit is ever-existent and apprehensible by the spirit of a Master.

At times of great crises in life the magnanimous man selects deliberately for application that truth or principle which both best fits new circumstances and is felt intuitively to be the more universal in spirit.

Act and principle then simultaneously increase in grandeur and significance: in one illuminating flash they become fused together. There is not, therefore, it would seem, a principle and an act separate, but a principled act and an acting principle in one eventful unity: neither before nor after the other, though the finite nature of description after the event halts lamely in an analytic portrayal of its unity.

An animal has a definite number of fixed and rigid tools or weapons, as with the megatherium.

Vital distinction between conduct of man and conduct of animal.

If the environment changes beyond a certain degree this fixity of armament becomes the snare and death trap of its owner.

At the other extreme is the soft and minute but lowly organism whose tools are largely undifferentiated and thus its survival value in the struggle for existence is great.

Man alone combines the two powers.

In his own body, elastic and plastic, he has the capacity of the utmost differentiation and adaptability. In his manufacture and making of tools and weapons

again has he the utmost variety, and yet also the strength and relative permanence of the megatherium.

In great action men differ in respect of the variety of tools they have created within themselves and without themselves. They differ, too, in the sobriety and unerringness of judgment with which they select the particular tools required for the particular occasion. Finally men differ in the skill with which these tools are used, and in the courage to discard and change the old, and initiate new tools as the action proceeds. Excess in preparatory effort exposes to the risk of unadaptability of the megatherium. Defect must face the risk of premature defeat before reserve tools can be organised.

The most powerful amongst these tools are theories and principles. These have an existence alike in the subjective world of the human soul and the objective world of the soul of nature.

Having acted, the magnanimous man will valiantly strive to bear the consequences, however painful, with equally great spirit, convinced that his errors are thereby purged, his understanding enlightened, his sympathies broadened.

Thus will he at times reach for a moment that height of moral elevation whereby is disclosed a wondrous mystery of soul that ventures to the deepest abysses of existence—perchance the deepest of all mysteries, in that justice is swallowed up in mercy, wherein the most soul-shattering pain and despair become transmuted by divine alchemy into ecstatic bliss of union with the Divine.

This view of great action is far removed from the conscienceless treaty-breaking, spirit-dishonouring action so frequently obtaining in diplomacy. Truly "necessity knows no law"; but herein differ by wide gulf the necessity that creates a precedent new and noble, ultimately soul enlarging and bearing sound fruit, and the necessity that creates a precedent

Necessity obeys no known law but creates new law, good or evil.

new and base, ultimately soul-corroding and bearing the poisonous fruit of remorse.

"*In the reproof of chance lies the true proof of men.*"
(SHAKESPEARE, "Troilus and Cressida.")

Routine, scientific and artistic activities; or, the master and lover of life as hodman, thinker, and artist.

Thus the ever-learning student and so ever increasing Master is absorbed, at first, as a veritable labourer or hodman, in the routine activity of gathering experience in any new sphere.

He then deliberately and painfully passes as scientist through the theoretical stage wherein the new principle, rationalising that experience and born from the marriage of the old theory with the new facts, rises into the full day-light of consciousness.

Finally emerges the joyous and creative artist in whom the principle has sunk into the night of subconsciousness, the artist who playfully, yet with workmanlike imagination, creates in internal reverie scene after scene of possible future experience, calculating replies to the probable combinations of events and thus outgeneraling Fortune herself; above all penetrating with eagle eye and cold impartiality into the degree of strain his courage can endure, therein plumbing the deeps of every soul and its very foundations in duty and honour, in love and compassion, in life and death, in resignation of the finite self and in affirmation of the Self that is infinite.

And so with each new sphere of experience and the underlying creative principle, the process is retraversed; the great stream of circulation goes ceaselessly on in the vast ocean of the soul.

The artist becomes again a hodman, the hodman a scientist, and the scientist becomes once more the artist on a higher plane of experience, judgment, activity, courage and power.

Yet all three types of activity are really mingled in

every act of experience. For the soul is never wholly passive in any one of these activities. Yet the proportion in which these fundamental kinds of activity are mingled would appear to justify us in naming them as we have done.

And so it is that every great achievement is won as a hodman: for man first as scientist and then as artist has, with tenacious self-discipline and a nobly fashioned character, imaginatively met and conquered the truly formidable aspects of the situation beforehand, those demanding intellectual cerebration and a courageous decision that, at the highest, are instantaneous, though their enduring influence and success are proportionate to the variety of experience on which they are based, and upon the degree of elevation of the character creating them.

By birth, not by education or training, comes each man to realise in the degree allotted to him this supreme stage of judgment, conduct and skill—the artistic (the demiurgic); though without education and training this power remains an atrophied seed. In it alone becomes man a veritable Demiurge, true image of GOD.

Here works the art of life's genius itself: the genius that dwells, imperishable and divine, in the personality of each; unique yet universal; nor hasting nor resting but ceaselessly designing and creating in its own spirit and form all life and its living within one single indivisible Self, in infinitely varied stages and degrees of the soul's activity, ranging over an immeasurable span of countless fields, from the unbounded exaltation of the bursting consciousness of a will that would clasp all things to itself, through obscure thoughts and feelings and desires, to the ever dimming light, and fading touch and taste and scent and sound and heat, down and down and ever down to the massive and awful darkness in the daily night of deepest sleep of the subconsciousness of those mighty and mysterious coenesthetic and undifferentiated senses, emotions and ideas,

phantasmagoric imagery and instinctive wills, hoary and ancestral yet never ageing and so for ever young, of each and every organ, tissue and cell, bacterium, molecule atom and protean, undiscoverable centres of this body of man, each element enshrining our personality, that indivisible unit of many things, great mystery of mysteries; each element a world within a world, minuter yet equal, without beginning and without end: uniting in matchless fashion those greater worlds we know and name the natural and supernatural: the world of reality without us and within, material, organic, and specifically human; and that world of the spirit within us and without in its supermaterial realm of beauty, its superorganic realm of truth, its superhuman realm of goodness—all in one small universe of Self. Such the art of life's genius in its infinite spiral that yet ever returns into Itself.

Here with its holy ideals or sinful idols, with its true ideas or false phantoms, with its noble images or alluring chimeras, lives and creates, for good and for evil, the personality of each member of the human race, child, woman, or man.

Behind this mystery of mysteries—the divinity in personality—no man has ever penetrated.

* * *

Of the above type of judgment are all living principles.

In the spirit of the thesis of this chapter we would wish to be interpreted and applied to life the system of thought and principles imperfectly presented in this book—itself in that case no finished piece of mechanism but an ever-developing spiritual organism and hierarchy of truths and principles living and growing in the soul of him that shall strive to apply it to life from the humblest home to the proudest nation in that divine spirit that exalts each truth as it arises into a law universal; thus cultivating, under Providence, a humble branch of the infinite Tree of Knowledge,

pruned, watered, tended and fed from his own experiment and experience, noble offspring of the universal Tree of Life. *Not to bind in the adamantine chains of a closed system of philosophy but to add strength to the wings of man's soul has been our supreme object.*

* * *

Casuistry and compromise.

We have spoken (p. 224) of occasions on which a principle may be reversed both effectively and also nobly. Here we must endeavour to avoid misunderstanding.

In admitting the wisdom of an occasional reversal of principle we admit the legitimacy of a science and art of casuistry, a name of ill omen to the European Protestant. But prejudice must not blind us to realities ; nor prevent us from venturing upon a fair assessment of the spirit of casuistry as incarnated in its most famous and influential form, Machiavelism. A fair observer may well class the English love of compromise under the art of casuistry, using both names in a fully honourable sense.

* * *

Vesta and Janus : the family and the nation.

Further, remembering one of our fundamental theses —that the individual and the family are each microcosms of the state—that all the problems of government are first initiated and epitomised in the body and soul individual, then more fully realised in magnified form in the family, —we shall find the historical judgments of nations and states throw invaluable light upon the principles and practice of private conduct, and the principles and practice of private conduct reflect invaluable light upon the former.

Two great problems confront the whole world with its parts now so intimately blended.

To extend the vision of the private family and home, too commonly narrow, outwards into harmonious

co-operation with the rich and multiform world without in all its spheres from group to ever-widening group; and to elevate, deepen, and purify the conduct of the great groupings of humanity from cities to nations, and from class to class, with the noblest spirit of the simple family * and home.

Thus may we happily re-incarnate the spirits of the ancient Janus and Vesta.

* In regarding the family as the microcosm of the state we have been influenced not only by Roman statecraft but also by the political thought of Aristotle in the West and of Confucius in the East.

Rousseau, strongly in his early writings, less so in his later, combated the analogy. The views of that epoch-making thinker must be treated with respect. But on this vital point there are reasons that show Rousseau to be an unsound guide. Alike by instinct and by experience he was a nomad (hence too, his botanical passion), and thus advocated two extremes, the one inevitably begetting the other as life advanced,—anarchic individualism in his youth, state absolutism in age, the complementary characteristics of a motherless nomad with loose family ties. Rousseau thus failed to realise that the family is the golden mean about which alone as centre of attraction statesmanship and statewomanship can stably oscillate. On the much disputed questions as to the historical priority of individual, family, or state (governmental unit), we venture to regard the point as futile and insoluble, even meaningless in the end. Each of the three depending for its continued existence on the other two, may we not say *the three are coeval, and focus research and discussion on their mutual illumination?* [For the first collection of the political writings of Rousseau in one body, see C. E. Vaughan, "The Political Writings of Jean Jacques Rousseau" (Cambridge University Press, 1915).]

CHAPTER XV

STATECRAFT (*continued*): B. POLITICAL PRINCIPLES *

From Machiavel to Franklin

"Lord, who shall dwell in Thy tabernacle, or who shall rest upon Thy holy hill? . . .

"He that sweareth unto his neighbour, and disappointeth him not, though it were to his own hindrance."

PSALMS.

FOR three hundred years, Doellinger tells us, the practice of Princes throughout Europe was in conformity with the theory known as Machiavelism (Machiavel, 1469–1527), as enunciated in "The Prince," published in 1532.

With, fortunately, an increasing number of noble exceptions, Doellinger might have stated that Machiavelism has been the practice of statesmen and diplomats not for three hundred years only, but for four.

The services of the famous Italian thinker were in so far great that he shows in the clearest way the unscrupulous arts by which the passions of men are made instruments of their slavery; those arts by means of which autocracy is evolved, increasing to despotism and deepening at length into tyranny.

Still greater were his services from a philosophic standpoint. Machiavel recognised that the most masterly conduct of a crisis in great affairs, whether of statesmanship or diplomacy or war, or whether in

* An epitome of much of this chapter, admirably made by my esteemed friend Mr. Cloudesley Brereton, appeared under our joint names in *The British Review*, Oct. 1915.

the conduct of private business, contains as its supreme element something which is *creative*, and thus beyond hitherto recognised principle.

This truth had been long known to men great in thought and conduct; but to Machiavel belongs, in Europe, the first clear and thoroughly illustrated statement and the first cogent and consistent evidence of its scope. Here too lies one of the elements of truth in the conception by Nietzsche of his "*superman*," not merely as a *super-human* spirit common to every man but a higher type of man altogether, a new species indeed: a philosophical position that is fundamentally false, for behind man *as a whole* man clearly cannot go, unless we can indeed clearly conceive of the eagle outsoaring the very atmosphere that bears it up, or a man moving so fast as to lose his own shadow. Yet this false conception does contain an element of great truth and at the outset underlay the titanic effort of German morality and German statesmanship to transcend current morality by something greater still; for they were surely striving —unless we do a great race gross injustice—not alone after world-wide hegemony but also after the establishment of their culture and civilisation as pre-eminent in the spiritual sphere; seeking thus to scale the very walls of heaven by violence. Olympus will abide the onslaught unmoved, but man's conceptions thereof will surely be somewhat changed.

Even righteous conduct when great has the paradoxical appearance of being unprincipled because it is above current principle; and in this sense rationalism is inadequate alone as explanatory of the universe. Principles are necessary, but not sufficient.

The misfortunes of Machiavel's own life, the misfortunes of states that have applied his theory in their statecraft when a long and large view of their welfare is taken, conclusively prove during four hundred years, that, potent as is the theory and great as is the element of truth it contains, yet something equally potent and

great in truth is lacking in its statement, its comprehension, and its practical application.

Any undertaking of human affairs, less vast than the business of conducting statesmanship for a whole nation whose doom is naturally slow in proportion to its size and power, if conducted on the principles of Machiavel, whether that undertaking be in a family, a business or any institution of whatsoever kind, would lead to complete disaster within a few generations. Experience of men, of families, of institutions, of businesses and of nations shows incontestably that the supreme asset is the honour of its character, for only on such a foundation can enduring stability be erected. Honesty is in truth the best policy for men and for nations.

Machiavel lived in a time when the mediæval spirit of the Church had practically passed away; when all truth about heaven and earth was under question; when the resulting anarchy of thought was being rapidly and necessarily accompanied by anarchy of conduct alike domestic, artistic, commercial, industrial, civic and political. Are we living in a period essentially similar?

In the prevalent chaos of human things in Western Europe Machiavel saw with surpassing lucidity the necessity for some supreme authority; and, in the circumstances, to his practical mind the supremacy of a national state appeared the one possible ideal, based upon the Roman legal maxim, "*Salus populi suprema lex.*"

Hence his great political theory that the welfare of the state justifies all things,* leading to the further principle that "the end justifies the means" (*raison d'état.*)

There are many deep historical reasons why Italy was one of the last of the great western nations to reachieve its unity (in the middle of the nineteenth

* The recrudescence of State-absolutism was foreseen by William of Occam (1322) and Marsilius of Padua (1327).

century). But the chief of these reasons on the spiritual side lay in the fact that the above political theory by which the otherwise great soul of Machiavel looked to establish a national Italy was fundamentally dishonest in method. This element repeatedly yielded its bitter fruit through the succeeding centuries; though so wonderfully and delicately constituted is the universe of man and nature that the considerable element of truth in that theory also bore its beneficial fruits.

It required an element absent in Machiavel's vision before national unity could be achieved.

That powerful intellect lacked a sufficiently balancing *emotional* basis. Its vision was clear and subtle; but the soul was not sufficiently lofty or profound.

Machiavel advocates for the statesman the courage of the lion and the cunning of the fox.

Statesmanship unites in one the innocence of the dove, the wisdom of the serpent, and the courage of the lion.

A greater than Machiavel urged men to add the innocence of the dove.

It is a pregnant fact to which statesmen and all good thinking citizens cannot be too deeply attentive, that the final achievement of Italian national unity was founded through the supreme instrumentality of the cunning of the fox (or, as we prefer to call it, the wisdom, or subtlety, of the serpent), incarnated in Cavour, the courage of the lion incarnated in Garibaldi, and the purity of the dove incarnated in Mazzini; and as all trinities demand unity for completion so were these three powers unified in the Italian King. Each was an indispensable element in the final result.

The greatest statesman by nature, by training and by habitual conduct of his life unites in equal degree the innocence of the dove, the wisdom of the serpent, and the courage of the lion; for innocence is the father of wisdom and the grandfather of courage.

Clearly the element omitted by Machiavel in his otherwise great theory is the innocence of the dove. Had religious belief not become decadent by his time

in the conduct of statecraft, the analogy of the wonderful Christian Trinity could not but have freed him from his dominant weakness both as a private man and as a publicist. The power of God the Father, the Wisdom of the Holy Spirit, and the purity of God the Son, three personalities in one, had ever been the great ideal of Catholic theology.

Machiavel and those unfortunate statesmen who have followed him failed to realise that action is not great, and has no enduring fruit, unless it creates not alone something new but something *new and noble:* a new *ethical* principle, transcending the old, while sprung therefrom; of a beauty so surpassing as to become a possession of humanity for ever, one it will not willingly let die.

Great action ever proceeds from the magnanimous and noble part of the soul, achieving results matching that part in endurance and fertility, not merely for the state or nation but also for the common weal of humanity.

Those actions on the contrary that are veritably unprincipled as the result of habitual unscrupulousness and deceit proceed from the evil part of the soul, ultimately affright humanity by their naked ugliness and at their very outset sow the seeds of future bitterness and corruption, distrust and hatred, both in respect of the state and also of the statesman.

Yet owing to the vastly longer life of the state the consequences to it generally emerge later than the consequences to the statesman himself.

Experience alike of private life and of public history shows indubitably that there is only one condition upon which man or nation can exercise great action properly called magnanimous or great souled in any crisis. That sole condition is the habit of exercising the like spirit of magnanimity in previous actions both in the large affairs of life and in the smaller. It is in the days of little things man or nation prepares a soul for great

The habit of noble or magnanimous conduct.

things: the habitual scoundrel or unscrupulous nation cannot suddenly act with the conduct of a great soul.

The finest actions are commonly the noble thoughts born of youth, evolved through maturity and fruiting in age, based at birth upon sound ancestral tradition of the preceding generation. In the far-famed actions of Alexander the Great,* carrying out and excelling the ideas of his father Philip, and the great teaching of Aristotle as to the magnanimous man, we have perhaps one of the most wonderful exemplars of the soundness of our analysis, itself inspired, we trust, by the Aristotelian spirit.

Heroic action has often the illusive appearance of utter simplicity. But we believe true heroism will ever be found, as distinguished from *instinct*, to spring from seed such as we have described. The illusion of simplicity arises from the fact that thought and action are so intimately fused. So is it with the heroic character of man or nation wherein the alternations of thought and action are so rapid and increase in grandeur with such patient measure that the life presents the appearance of one simple great and continuous piece of conduct, Homeric in simplicity and majesty united.

The supreme decisive factor of conduct is spiritual. The root causes of the decay of autocracies.

This single consideration is, we have said, so generally neglected and yet so important that we ask the further patience of our readers for its still more detailed consideration.

Prediction possible in mass though not in detail.

Those who attempt to predict the general course of human events, if they are wise in experience, realise full well that no human foresight, however carefully founded upon existing facts and past events, can do more than anticipate the broad outcome of large movements. Even in the

* Alexander, like Raphael, Mozart, Shelley, and many men of great genius, entered the period of old age about thirty.

simple dropping of a stone no physicist can predict more than the general behaviour of an ideal model which deliberately ignores the infinitely detailed physical behaviour of the stone save in one single aspect. The infinite complexity of future details and facts will ever escape human prediction, depending as they mainly do upon the incalculable action and unique conduct of individual personalities and things.

But just as the management of an insurance company can be successfully based upon the prediction of the average sum-total of the future countless events in the lives and deaths of individual men, when calculated upon the massed and massive results of the past, so that individual and unique future contingencies are swallowed up in the larger view of the whole; so is it possible, from thoroughly considered study of the past of any kind of large human movement, to forecast with reasonable certainty the general outcome of similar movements, provided we have the skill to diagnose the movement under consideration and classify it with substantial accuracy among numberless types in the scientific record of history.

For success in this supremely difficult task of diagnosis it is essential that the statesman should with unerring artistry select as his guiding threads those great and permanent truths lying alike at the base, at the centre, and at the summit of all large human affairs and governing their outcome with all reasonable human certainty.

Genius alone, based upon deep experience of men and affairs, can penetrate this diagnosis successfully; and that nation will reap the noblest and greatest harvest that can win the services of such men of genius.

Highly important as are the various factors of a great war: such as the geographical position, the rapidity of attack and counter-attack, the organisation of communications to ensure a velocity of movement of war material for the guns and food material for the

stomach equal to the velocity of movement of the troops. Or again highly important as are the actual tactics and the larger strategy of each of the armies concerned; with the perfection of training on the part both of the ordinary soldier, and of the officers, commissioned and non-commissioned; and finally the economic and financial positions of the warring nations with the various complex objects with which war is waged on either side. Highly important and essential as are all these and other factors that will occur readily to riper experience, still they are not, even taken together, the supreme and decisive factor that will ultimately settle the question.

The supreme and decisive factor in war is spiritual.

This decisive factor we take to be dependent on the truth that, after all material and other temporal considerations have been duly weighed, the conduct of war is, even more pregnantly than the maintenance of peace, owing to the immense rapidity of its action, a *spiritual* phenomenon.

All the greatest statesmen and generals have ever recognised this fundamental truth: above all, perhaps, Alexander, Hannibal, the Scipios, Cæsar, Cromwell, Napoleon, and Lincoln.

If we take an even larger view and think of national or racial conflicts as extending over perhaps decades or even centuries of separate and apparently isolated campaigns, so that our view embraces in its extremes all human affairs from the hand-to-hand combat of two soldiers in one of the battles up to the actual birth, maturity, and dissolution of the state itself, then, in accordance with the wide statistical and spiritual principle we are considering, so much the more certain can our predictions become, the more nearly we approach the final and larger extreme of the picture of the history of the state itself.

"*The President enjoys more authority, if less dignity, than a European king.*"

(LORD BRYCE, on the President of the United States.)

Two broad types of government.

Although it is not possible to separate entirely modes of government into different types, merging as they do just as the meanings of words blend insensibly into each other, yet for practical purposes we may divide all governments into two types, between which, and composed of these two in varying degrees, all possible types of government lie. The type at one extreme is constitutional and representative. The type at the other extreme is despotic and absolute.

No ancient, modern or existing governments coincide absolutely with either of these extremes. But in proportion as any government approaches the one extreme or the other, so can we with reasonable safety and certainty, basing our statements upon the records of civilization, affirm and predict the destiny of a state according to the evolution of its mode of government towards the one or the other of these extreme types.

In forming our judgment let us beware on the one hand of the wolf in sheep's clothing and, on the other, strive to recognise the angel in the beggar. For the spirit of autocratic absolutism may disguise itself in the most representative constitutional form; while the most autocratically absolutist form may be genuinely inspired by the spirit of representative constitutionalism.

The broad destinies of the two types—absolutism and constitutionalism.

There is not place here to establish this affirmation by broad historical appeal to actual past cases, but applying the principle to the history of the successive European ascendancies—and the same appears true in the East—let us carefully reflect upon these. It will be found, we believe, that those governments predominantly absolutist in type and spirit necessarily come to a comparatively speedy dissolution; while

those governments that are predominantly constitutional and representative in type and spirit tend to an existence, the more enduring the more increasingly representative they can succeed in becoming : not of individual citizens alone, but representative of families (women, children and men), cities, regions, nations, races, groups of occupations (employing and employed), and institutions religious, educational, scientific, literary and artistic, social, legal, industrial, professional, political, financial and so forth, and the more they succeed in harmonising the fullest energy, scope and life of each element, and group of elements. For the strength and happiness of each cell and organ of the body is indissolubly united with the strength and happiness of the whole, and of this latter with the former. The abidingness of the work of genius itself rests upon its wonderfully representative nature being a majestical image of common humanity at its highest. As representing the highest in each, genius is creative and the stimulator of creation ; it leads as well as reflects; each the more powerfully, the more truly it incarnates for us the highest of which we are capable. Genius in government, as in all spheres, reveals to us the unsuspected deeps and altitudes of our own souls.

Under the leadership of the great conductor each member of the orchestral group surpasses himself. But the moment appeal is made to lower passions, from that moment begins the downfall of the guiding inspiration of genius, as with Alexander, Hannibal, and Napoleon.

The root differences lie in the mutual attitudes of government and national genius.

We have already hinted at the sociological root of this political fact, and we may, by reason of its importance, re-state it perhaps more significantly and illuminatingly thus. The absolutist types are commonly founded by men of genius either in the actual persons of the supreme head of the government (emperor, king, president and so forth), or by some great political and militant servant-genius

whose fruits are harvested by another. Now the laws of breeding and experience alike prove incontestably that there is a narrow limit to the succession of geniuses, hereditary or elective, in an absolutist state; while on the other hand in a constitutional state the widely representative nature of its government affords reasonably ample scope for the selection and rise of all types of genius that may be born within that state.

Thus the final test of the endurance, stability and welfare of states is the representative scope they afford to the development of native genius as incarnating the supreme demonic force of humanity. This applies with equal force to genius in thought and to genius in action; though in the former case the issue is slow and enduring; in the latter rapid and less permanent. It also applies to every kind of individual or social life; the rule over a man's passions, the government of a family, a school, a business, up to a city, nation or commonweal itself.

The gradual and general effect of an absolutist government is to convert native genius into rebellion, so that instead of prosperous evolution the state is subject to the periodical crises of revolution and anarchy, wherein we see absolutism alternating with revolution for longer or shorter periods of time, and dynasties succeeding each other as each is destroyed by the inevitable subsequent revolution brought about by the suppression of genius and its conversion from peaceful service to the state to hostile revolution against absolutism; until a genius sufficiently great arises in his turn to wrest the prize from his predecessor.

Alternations of absolutism and anarchy.

It is, we take it, this decisive factor that explains the general tendency of families, nations and states, *wherever civilisation advances*, gradually to depart from the absolutist type of government towards a more and more constitutional and representative kind, whether this be in the form of a limited matriarchy, patriarchy, monarchy, presidency, or other species.

We seem to see in the present gigantic struggle a colossal effort on the part of absolutist governments to survive in the world-wide movement that obtains towards increasingly constitutional government of peoples by themselves.

The root causes of the breakdown of autocracy.

Are these not the causes which ultimately lead to the decay and breakdown of autocracy of any kind?

We may perhaps realise these root causes by consideration of some modern attempts at despotic ascendancy over Europe, the hegemony of Europe.

On the achievements of his father Charles V., Philip II. of Spain built.

On the achievements of the great Richelieu Louis XIV. built.

On the achievements of his great predecessors in the early days of the French Revolution (amongst them Carnot, "Organiser of Victory") Napoleon built.

On the achievements of Bismarck, the German Kaiser built.

Illustrations of the like great kind are scattered throughout man's history.

In every case examined we note that there comes a time in the life of every autocrat when he ceases to be master of himself, when he becomes a slave to his own dreams.

From that moment he gradually discovers that men of genius refuse to co-operate in his tyrannical designs. However great a genius, he is ultimately left to complete his ambitions with the service not of men of genius similar to his own, but with men of that inferior genius, men of ability who are merely men of talent. Lack of magnanimity prevents him from delegating wide powers of authority, and excessive centralisation with assistants unequal to himself leads to disaster in the end.

Not only do youthful and rising men of genius

refuse to co-operate in such ambitions, but they instinctively band themselves together in persistent opposition thereto. And as in the last resort genius can only be overcome by genius, it follows that genius deluded, debased and deteriorating, as is ever ultimately the case with despots, finds itself supported truly by men of talent, but opposed by independent men of genius equally great with itself. The resulting downfall is inevitable. The divine fear of God working through man or other divine instruments is the beginning of wisdom; but the idolatrous fear of living man as a god is the beginning of folly and the instrument of tyranny.

Machiavel tells us with deep truth that by no single character can we more truly judge a ruler than by those he selects to advise him, and further that it is an infallible rule that a prince who is not wise himself cannot be well advised; unless by chance he leaves himself entirely in the hands of one man, who, himself a prudent man, rules the prince in everything. We prefer ourselves to state the point thus: the greater the modesty of a ruler the greater wisdom can he gather from his advisers, and to this there is no real limit, as the deepest modesty is ever the highest wisdom utilising all. This principle is closely allied with the central application we have insisted upon above as regards the prime roots of the downfall of absolutist governments.

Enduringly great men and rulers love best to have around them other great men who fear not to speak the truth when their advice is sought; as sought it must ever be for safety. The yielding man changes ever with the times and may compass a long and healthy life, but a life that must needs be mean. The obstinate man strives to bend the times to his own firm will. But the times change; the obstinate man changes not; and ultimate ruin is the end. Obstinacy and weak yielding by turns is the most fatal combination of all. A great man alone, plastic and elastic in genius, learns to recognise

the time to yield and the time to be firm. A great man both changes the times and changes with them. He alone knows and suffers and enjoys life in its utmost fullness and breadth, height and depth.

Thus the autocrat in the end fails to establish an enduring stability, both by reason of his slavery to an idea, falling victim to the disease of mono-ideism whether this be the welfare of the state, or his own ambition, or any other single specific object noble or ignoble (it matters not in the end); and also through his inability to win the co-operation of men of genius; or through fear of entrusting a suitable sphere to its activities. This the once great Napoleon admitted late in life to his cost, when he said: "J'ai pour moi les petits talents, mais non pas les grands."* It is easy to imitate the faults of a master; to emulate his virtues is difficult. Yet by the latter man achieves enduring results; by the former he sows the seed of assured future misfortune.

Wallenstein, the Typical Despot.

We select the figure of Wallenstein, as illustrating in a remarkable degree those qualities that characterise the masterful amongst men, and that lead with rapid climb to dazzling heights of power and of glory, yet in the end reduce their possessor to impotence or destruction.

Wallenstein, born in Bohemia, 1583, of Protestant blood, was educated on the death of his parents by Jesuit teachers, which rare combination produced his broad toleration of religions, a quality ever colouring great natures. After a German university education he imbibed in his Italian travels much of the Machiavelian spirit of unscrupulous diplomacy and state-craft, so congenial to some powerful instinct in his character;

* This apposite quotation I owe to my friend Mr. Cloudesley Brereton, with one or two other improvements in this chapter.

and fleshed in human blood his youthful sword in defence of European culture and civilisation against the inrushing and victorious Turks.

Well adapted were his temperament and education to sympathise with and subserve the dynastic ambitions of the Hapsburg Emperor. His own first marriage appears to have been dictated by the desire of riches; an object still further realised by his second marriage to a court favourite, thus adding to property its influence and resulting power.

The ancient traditional hopes and ambitions of the holder of the position of head of the Holy Roman German Empire (Heiliges Roemisches Reich Deutscher Nation) revived in the ample soul of Wallenstein. There is no direct substantial evidence for the opinion, it may yet be safely surmised that, though, at the outset, Wallenstein aimed at the achievement of supremacy on behalf of his master, the Emperor Ferdinand, yet rapid initial successes doubtless began to influence his own mind in the direction of the possible incarnation of that supremacy in his own person—at least to the point of the kingship of Hungary.

He undoubtedly aimed at the establishment of a supreme despotic ascendancy for the Emperor; and his idea took not so much the form of a Roman Empire only of the West, as of a hegemony that would embrace the sway and possessions of the old Byzantine Empire overthrown by the assaults of the Muhammadan power. Joined to this ambition was the object of shattering the maritime power of the Northern Protestant nations, including England herself.

Thus was the empire to become supreme both by land and by sea, basing its permanency upon the organisation of the efficiently trained standing armies which Wallenstein learnt so well to organise, and on the development of fleets which he never succeeded in bringing into being. The very titles bestowed on Wallenstein by the Emperor included with more than

one Dukedom the Generalship of the Baltic and North Seas.

Now it is instructive to observe that the first substantial, and, in the end, increasingly important check received by Wallenstein in these his two great ambitions was due to the successful resistance of one of the great free towns of the Hanseatic League, Stralsund. Beleaguered by land in most effective manner, yet open to the sea, the city could not be taken; and though Wallenstein boasted that he would reduce Stralsund "*even if it were bound to Heaven by chains of adamant*" he must here have realised once for all that at least the greater half of the vast ambition was beyond achievement—supremacy on the waters.

Doubtless this one great failure early in his life became a fact lying potently in his soul that tended with increasing frequency to produce that irresolution of an otherwise massive character which in the end proved fatal.

His failure here, however, was more than compensated awhile by his recovery of prestige during the subsequent critical position in which the Emperor found himself in face of his numerous and powerful enemies.

Wallenstein is typical in temperament of the masterful despots of humanity. At first, creating his own dream from the raw materials of the environment of his birth and times, he remains for a time its master. At length successes increase so surprising in their fullness that there comes a moment when the dream begins increasingly to master the dreamer. Thereafter the dream becomes the idol of the soul it inhabits, an idol with feet of clay, whose despotic sway reduces that soul into a slavery like unto that created by himself amongst those subject to his will: from whom, therefore, he can never learn the bitter but salutary truth of things beyond his own personal view.

And now the idol, blinding those balancing twin eyes of man, Reason and Conscience, destroys both

itself and the miserable slave of an impious ambition, hateful to the great gods of Justice and Mercy, Freedom and Destiny.

To greed voracious, unscrupulousness without limits, and ambition ruthless, Wallenstein added at length an overweening pride of deportment and an insulting arrogance of speech.

In the Franco-German War of 1870–71 there is a story of a merchant following the French armies and making a rapid and unexpected fortune by selling at exorbitant prices the necessities of life to the needy soldiers. Anything whatsoever would he sell at a price! So inveterate at length became this habit of sale and gain that the merchant fell to the dangerous temptation of selling himself to the enemies of his country by betraying information for gold. Discovery followed, and the merchant was shot.

So is it with the conduct of men of the stamp of Wallenstein: habitually deceiving others, they end by deceiving themselves and become caught in the toils of their own schemes. Wallenstein met a violent death almost in the prime of man's power, between fifty and sixty, a period in which despots so often meet their fate.

Yet should it be added in justice that his vices were accompanied by capacities of statesmanship, far-reaching and sagacious; forming dreams and ideals that were not entirely of personal dominion.

Not the least of the great qualities of this character so lofty in many essentials was his organising power in the management of his own estates, the very roots of his genius; and it has been justly admitted that his own immediate subjects were in a condition far superior to that of the inhabitants of any other parts of Germany. This noble quality has indeed characterised many of the ruling German families.

Nor can we but deeply admire the fortitude of his soul amidst the agonising tortures that he suffered from the gout.

In the trilogy of "Wallenstein," Schiller has painted for us in enduring form and colours the character, genius and temperament, the career and fortunes and end of Wallenstein, amid the complex and tempestuous circumstances of his time—a trilogy esteemed by good judges as standing on a level with world dramas that are genuinely historical. There are two lines from this drama in which we may perhaps rightly think that Schiller would have us epitomise the constitution of man, and which so eminently reveal themselves in the life and times of Wallenstein.

We have purposely omitted one final point which forms perhaps the most curious and yet, looking to the combined science and superstition of his contemporaries, the most natural trait of Wallenstein's character. Amongst the early influences to which he was subject was the friendship of a famous astrologer, and it was Wallenstein's belief in "*the guiding star of his destiny*" that at once fortified and inspired his own soul in the midst of his greatest difficulties and perplexities, and drew to his standard from all parts of Europe a host of similar souls, unscrupulous, daring and ambitious. But this very belief in his star was his undoing on the most critical occasion of his life, when it paralysed his action in the vain hope of waiting for a favourable conjunction of the planets that never came.

This belief in a star of destiny has been alike the initial power, the central perplexity, and the supreme internal cause of the ultimate downfall of all great and masterful autocrats, individual or collective. We see it in the faith of Cæsar crossing the Rubicon; nearly two thousand years later we recognise it in Napoleon's statement, half true, half false, that "*History is Destiny.*"

We would draw special attention to the significant and deeply important *rôle* played by one of the great free cities of Europe in the arrestment of Wallenstein's dreams for the hegemony of the Austrian Empire. It is indeed the flourishing burgher existence of free cities

that with internal periodicity restores sanity and balance and safety in the sphere of human progress and development, alike in the conservation of utilities and the creation of the arts, the conservation of beneficial custom and the creation of civic ideals. And this is likely to be no less true, in the present conflict, in the great cultured cities of the world.

We may also re-emphasise that noble element in the character of this typical despot, his broad religious tolerance, a characteristic of all massive characters, whether of the despotic or creative kind.

Nor was this vast ambition of hegemony by any means entirely evil. The commercial, dynastic, religious and other conflicts and jealousies that resulted in the horrors of the infamous Thirty Years' War (1630–1648) could not but suggest to the organising mind of a man at once soldier and statesman the need of discipline and control as possible under a hegemony alone. Even the Peace of Münster (Westphalia, 1648), left Germany divided among some three hundred rulers.

The history of mankind constantly shows a rhythm between the gathering up of power into the hands of one and the falling asunder of the component parts followed by a period of progress and welfare; until the excessive growth of wealth and pride in the units brings its conflicts and there results the anarchy of numerous small cities, nations and states. Whence again comes the need of the chastising and unifying by the tyrant, commonly and justly called by the peoples "*the scourge of God.*" Truly does "*the people get the government it deserves.*"

The Evolution to Franklinism.

We turn to a world figure of a sharply contrasted type.

It is the glory of North American statesmanship to have first completed in public statecraft the imperfect yet so far masterly theory of Machiavel. The statesman

to whom civilisation owes this immense advance was Benjamin Franklin, a true world-citizen and the greatest statesman of modern times.

Into the thieves' kitchen of diplomacy of the eighteenth century he carried the honesty of the sound craftsman printer and the morality of the good father of a family. Through his masterly diplomacy in 1778, a diplomacy whose spirit in the main still persists in the statecraft of his country, he succeeded in creating that alliance between the United States and France which was the greatest factor in the ultimate achievement of the independence of the United States, an achievement with vast consequences to France itself and subsequently to Europe, and now in all probability finally to the whole world.

From a life-long study of the life and conduct of this great man,* we do not hesitate to ascribe to him, in a degree of intensity and balanced proportion unequalled elsewhere in modern centuries, a union of the three supreme qualities of great statesmanship we have enumerated above.

It is sometimes feared that known honesty in a statesman is a bar to great achievement, on the ground that the action of such a man is calculable in circumstances where the situation obviously demands that the action should be incalculable. The fear is natural to the soul of smaller capacity. Franklin himself was suspected on this ground; the great sequel amply justified his belief in common honesty. Indeed deeper reflection and more rich experience prove that such fear is unfounded. We all know Bismarck's occasional and deliberate use of honesty as the surest means of deceiving and mystifying a world of diplomatic knaves; and doubtless knaves will ever abound for honesty to confound. Honesty united with wisdom and courage is vastly more profound and incalculable in conduct than can ever be the outcome of the wiliest

* See also Macdonald's Edition of Franklin's Autobiography (Dent).

unscrupulousness: for this reason, simple yet sufficient, that powerfully destructive as is the spirit of evil, still more powerfully creative is the spirit of good. Duplicity ever in the end is strangled in its own toils, caught in the web of lies it spins; whereas truth is "a light unto the path and a lamp unto the feet," a burden easy to bear; but deceit obscures, and its accumulating weight of intervolved complexity breaks down the strongest memory. Truly great action is unpredictable and incalculable in all respects save one: it will be honourable. But such action is necessarily effective and achieves its end either because the unscrupulous enemy disbelieves in honour and thereby is misled by building on action contrary to honour; or at length the enemy becomes convinced of the honour of his adversary whereby goodwill and peace arise; for the spirit of honour breeds trust, and trust brings forth conciliation.

Happy we, men or nations, that bear as a burning beacon lifelong within our souls the great truth that Nemesis inexorably repays us in the false coin we minted; and, at Her sternest, destroys us with the instruments of evil we ourselves have forged, and that with these alone is power over us given unto Her.

* * *

There is an old mediæval story that seems fitting here.

"Two famous knights were to fight each other to the death on the morrow. The night before, the one of noble character sought his adversary's tent. Entering unarmed and alone he found the adversary asleep on his bed. Bending over the couch he awoke his enemy with a kiss upon his forehead.

"The other knight started up at first in affright, but seeing the innocent intentions on the face of his foe, he laid him down again.

"'Why has thou visited me thus and done this strange thing?' asked the recumbent knight.

"'I desired,' replied the other, 'to give thee the kiss of peace; to tell thee how profound is my admiration for thy bravery and skill, and to beseech thy forgiveness not only for any unchivalrous act I may have done thee, but for any ignoble thought I may have felt towards thee. Then if thou killest me on the morrow, I shall die in peace with God.'

"Thereat his enemy, a man of bold and ruthless character, was so surprised that he could utter no word.

"His magnanimous enemy then left the tent, and returned to spend a peaceful and refreshing night. The other could but toss feverishly upon his couch with the flood-gates of the soul open, and emotions rushing through that till then he had not felt since the days of his early youth.

"On the morrow he was slain."

* * *

Franklinism.

Statesmanship and diplomacy of this kind, combining the wisdom of the serpent, the courage of the lion, and the innocence of the dove, we propose to call *franklinism*.

Therewith goes forth the hope that the increasingly bitter fruits of *machiavelism* will discipline the world into correcting, expanding and completing the spirit of the latter by the spirit of the former; and thus gradually approximate the principles of statecraft and diplomacy in peace and war to the standard of conduct obtaining in any decent, simple, human family. Profoundly true but sadly unrecognised is it that supreme wisdom in peace is identical with supreme wisdom in war, and supreme wisdom in war identical with supreme wisdom in peace.

"πᾶσα οὖν ἡμῖν ἡ πολιτεία συνέστηκε μίμησις τοῦ καλλίστου καὶ ἀρίστου βίου."

(Our whole Polity is modelled upon the Life that is the fairest and noblest).

PLATO: Laws, 817B.

Is not the moral of the whole matter that we want in statesmanship, and in diplomacy in particular, a new reading of human nature, a greater allowance for and appeal to the qualities in man nobler than those of unlimited egotism or slavish dread? Must the vision of Plato still remain an unfulfilled dream?

The laws of private and public ethics are at bottom identical.

Yet cynical schools of diplomacy the world over have ever maintained that there is and must necessarily be in the nature of things qualitative difference between the ethical essentials in the conduct of foreign diplomacy and the ethical essentials at the basis of individual conduct. This belief we hold to be one of the most vicious and pregnant for evil in the history of man.

The soul of the individual man has been created in the image of the Great Creator; likewise the collective soul of the family itself, consisting of individuals; and nations, races and the whole of humanity itself, past, present and future. Responsibility, punishment and suffering are at deepest alike individual, hereditary, vicarious, and collective in the great universal scheme of things. The old custom of the King's "*whipping boy*" deserves modern attention. What King that loved the lad—and commonly it was a favourite playfellow—but suffered in his soul as the stripes stood angrily out on the other's skin?

Truly, customs change from age to age and place to place but the underlying ethical laws of conduct, as between man and man, family and family, nation and nation, nation and humanity, and humanity and its God are one and identical.

It is in the mysterious power of man to violate these laws in the creation of evil, as it is equally in his power to obey them in the creation of good; but any violation of them, to whatever degree and in whatever direction, brings with inevitable Nemesis its pernicious fruits to that wondrous spiral hierarchy of

life: individual, family, city, region, nation, state, and humanity. *As a unique and isolated being, man suffers alone; as a universal and continuous being, man suffers in common.*

*Peacedom and Wardom.**

Perhaps the direst consequence of this cynical belief is the prevalent European illusion, now fast spreading blightingly over the world, that "*to avoid war we must prepare for war.*"

In this arresting form the maxim is rarely put; more common and alluring is the form: "*If you wish peace, prepare for war.*"

Derived from Roman statecraft in its decline, its source is misinterpreted, its evil fruits ignored.

Yet the commonsense of the plain man and woman tells us clearly that any conduct between neighbours persistently inspired by this maxim must always and inevitably tend to conflict, and will commonly culminate in the transformation of neighbourly relations into relations that are hostile.

Of all the triumphs of the franklinian spirit of diplomacy and statecraft we hold that to be one of the grandest which, conducted on maxims the precise opposite—*if you wish for peace, prepare in every way for peace: by honest and open diplomacy: by cautious and mutually progressive disarmament based upon a sober assessment of prevalent world-factors: by a spirit of sane international co-operation everywhere and always: by a conviction, instinctive and reasoned, that the ultimate and highest welfare of all states coincides with that of each*—led to the Disarmament of the Great Lakes (1815–16) and the thousands of miles of coterminous frontier on the initiative of Monroe, Secretary of State to the United States; and acted as precursor and continuator of a

* See p. 197; and Geddes, "Sociological Review," January, 1915.

century of peace between the United States and England.

* * *

"The strife be mine, the judgment Thine;
Thou Light of all the days!"
(VAUTIER GOLDING.)

Yet even amongst the most peaceably intentioned neighbours the citizen commonly locks his house door on leaving home. And does not the old jingle dig deeply down into the roots of this vast matter of war and peace by sadly admonishing us?— **House bolt and superdreadnought.**

"*While bolt remains on door,*
In the world there will be war."

Can we free our souls from prejudice and prepossession and review the question from a standpoint that is deeply scientific because it is homely and simple?

Is the homely house bolt but the baby brother of the superdreadnought and the armed host? Is the public opinion of the nations adjudicating between warring states but the big brother of the simple verdict of the local judge upon the quarrels of the villagers?

So far perchance true. Yet behind the verdict of the judge stands the policeman; behind the policeman stands the rifle of the soldier. Is there aught corresponding behind the verdict of the nations? The analogy appears to stop tantalisingly at this significant point. We are tempted to fill the chasm by demanding an international police, and behind that police an international armed force. Perchance these too may be in the long future; but scarcely yet.

Shall we push our spade of analysis a little deeper still into the roots? Here an ancient tale may help.

"Ecce, in justitia regnabit rex!" *

The roots of power.

In the grand hall of Justice on an Eastern throne sat the King of Israel in judgment. To him crawled in on hands and knees a beggar mean, calling for justice against the King's own act.

"What gives thee courage to appeal against the command of thy Lord himself?" said the King marvelling.

"Can I not appeal to my Lord against himself?" replied the beggar.

"But how is that possible?" said the King. "Can one man divide into twain?"

"Yea," said the beggar, "man is not twain only but many in one."

"Whom then," returned the King, "dost thou see in me beside myself?"

"In your Majesty, and yet also behind your Majesty," replied the beggar, rising to his feet and revealing a surprising loftiness of stature, "I see a long line of ancestors, of whose august company the King must needs prove himself worthy."

"And if this fails to touch me?" returned the King, after a pause.

"In front of thee, O King, and yet also in thee," replied the beggar, "I see a still longer line of princely descendants to whom thou must needs be an example."

As the beggar thus spoke his stature seemed to the King to enlarge to the roof of the audience chamber: and the King felt himself strangely diminishing to dwarf-like size: and his voice grew feeble in proportion, whilst the voice of the stranger sounded deep and solemn.

"And if this, too, moves me not?" whispered the King after long silence.

"Then do I appeal to all the peoples over whom your Majesty rules; to the whole of living humanity;

* This famous line was quoted by Cardinal Mercier of Belgium in one of his lofty and courageous proclamations.

and to a still vaster company of souls, the spirits of the mighty dead and those of the yet unborn," and the voice was the voice of thunder in a clear sky; for the form of the beggar towered even unto the lofty mountains; but the stature of the king dwindled to the footstool of his throne, and his heart melted within him.

No audible word could he now utter, but pride burned within his heart, and his silent lips would fain have given the reply, "Am I not the King, and shall not my will be done? Whence comes thy might, cloud-compelling giant that thou seemest?" Yet no words went forth.

But there came a voice from heaven: "Then do I call unto Him that created thee, O King, and all thine ancestors and all peoples; unto Him that shall create thy descendants and all future peoples: even unto the very Spirit of Justice! And that Spirit I find within my own heart; and in thine heart too, O King, though sleeping, does it dwell majestic and all mighty! Hearken unto the voice of the King of Kings ere thou givest commandment; then shall thy subjects yield thee willing and true obedience, and thy will be done in spirit and in form."

And from his heart indeed there came at last a whisper to the King, far off and faint, "It is even so."

And the body of the King dwindled to the dust that lay unheeded on the floor. But the Form of the Stranger was magnified even unto the stars; and His shadow covered the earth as with a mantle; and upon His countenance shone a dread grandeur and a power of Judgment that filled the King's soul with awe unutterable.

Then slowly melted the Form mysteriously away while into the King's heart the Shadow crept, turning it to ice as with the finger of Death.

Trembling the King awoke and found it was a dream.

Yet a dream so searching in its light and so

eloquent by its might that the fear of God became to the King the beginning of wisdom. And the Spirit of Justice reawakening in his heart from henceforth did he justice even to the meanest of his subjects.

And King and Subjects learned the power of command and the nobility of obedience, each based upon a spiritual harmony of earthly wills joyfully accepting the inflow of the divine Will of the Spirit of Justice. For "it shall be at that day, saith the Lord, that thou shalt call me Ishi (my husband), and shalt call me no more Baali (my master)." (Hosea ii. 16.)

* * *

What then stands behind the rifle of the soldier? The soldier's heart. And at its centre sleeps that Spirit of Justice whose reawakening is as the might of the sun in his glory.

* * *

Homely bolt and armed host: verdict of magistrate and public opinion: behind them all the eternal spirit of Justice.

* * *

But not by maxims alone will be wisely solved the vast and complex problems of peace and war, those problems whose treatment will bring an era of Peacedom or an era of further Wardom. For maxims run in complementary and opposite pairs: one or other of which is raised into temporary prominence according to the passion or temperament, tradition or needs of conflicting individuals or groups.

Maxims and other ideals and principles of conduct in themselves are abstractions, powerfully persuasive and invaluable; but without correspondingly familiar experience of the circumstances actually existing and the present realities they are equally likely to lead to foolish actions as to wise.

Complementariwise, a nakedly realistic experience of the brute fact in itself as concrete, without the interpretative inspiration and guidance of ideals, is equally subject to the same great danger.

Idealpolitik, polity based on principle alone, sees everything save the immediate present and pressing reality; *Realpolitik*, based on the facts alone, sees nothing but these facts.

For wise action polity must deliberately unite the worlds of the universal and of the particular; sound government unites realistic views with spiritual visions. There are two extremes, the one of pacifists, the other of the militarists. The one would find in its heart of hearts the ideal of gradual total disarmament as towards a world of perfect men at perfect peace. The other would find there the ideal of a nation ever at its full war strength as if against the whole world in arms.

Ideal-polity is presbyopic: real-polity is myopic.

The former ignores the spirit of civil strife: the latter the spirit of international peace. Surely equally grave blunders; though the former errs by excess of nobility, the latter by defect.

Let any individual group attempt to make itself absolutely and entirely secure: and it must be either ready to concede everything, or to arm against the world.

The mighty hellenic king of old built an impregnable tower to shield his daughter's chastity against the sons of earth; love broke through from heaven and made his labour vain. It is an impossible task to isolate securely anything whatsoever, whether in thought, industry, or politics. Not even "key-industries" can permanently be safeguarded by any one state or group of allied states: for the inventive genius of man is scattered broadcast among the peoples, and each region of the earth has its unique individuality which will not be denied its ultimate world influence.

Armaments then must needs be based upon the broadest statesmanship, and such statesmanship must strive to harmonise the demands of ideals, whose spirit is universal and changeless, with the equally insistent demands of realities, changeful and chanceful.

The ideal-polity of statesmanship.

The ideals are those elusive *imponderabilia*, racial and regional (*genius loci*): religious and ethical: historic and traditional: educational, literary, and artistic: together enshrining the soul of person, place, and people.

The real-polity of statesmanship.

The realities are those facts which can be scientifically measured and weighed with all reasonable and substantial accuracy by sociological surveys, impartially designed, systematically organised, and thoroughly carried out; such surveys as no nation has yet set about in earnest. They embrace in their scope geographical and geological conditions: activities industrial, commercial and agricultural: all vital statistics: political considerations from the votes of the parish ballot box to the existing balance of international power. In a word they form all the items of life reducible to statistical calculation.

Mathematics and finance the basal science and art of real-polity.

This side of statesmanship is its real polity; it is, broadly considered, a branch of mathematical science, and its corresponding art is finance. For in the last analysis all realities have their price; but no spiritualities whatsoever. Everything real can be measured and numbered, valued and bought; from river rights to ocean passages; from the sand in the child's kindergarten to the lofty Kilima Njaro mountain; from the nosegay of country flowers in a slum-placed hospital to the scenery of a fashionable health resort; from the domestic house and its contents to the province with its inhabitants. Thus the realities of wardom and peacedom are equally rooted in finance: the

bankers* are the perpetual and inevitable temporal rulers of the world; and mathematics is the science and finance the art by which that rule is maintained. However much the individual financier may change, the function and office remain. And of all their wealth the greatest are babes.

Bankers the real temporal rulers of the world.

But, as in wondrous panoramic transformation, all realities and their money values shift and change in obedience to the spirit of the mighty imponderabilia that inspire their use and control their activities; so that the firm appearance of the realities is but a foundation of sand, a mirage in the desert.

But the supreme aspect of statesmanship is spiritual.

Thus we return to the old truth that the ultimately decisive forces in war and peace are those spiritual imponderabilia that can neither be bought nor sold; are without value, and therefore priceless. These imponderabilia are the fated and abiding supreme spiritual rulers of the world; and their loftiest incarnations are the souls of the folk enlarged, enriched, and deepened to the maximum of that god-given genius for life, noble and abundant, potential in every babe. It is this supreme aspect of statesmanship that weighs and tests with scrupulous justice on the spiritual balance of the soul's sanctuary the inborn character of the statesman, and reveals him in all his strengths and weaknesses.

* * *

In itself neither peace nor war is defensive or offensive; but both or neither, according to the rhythmically changing spirit that inspires it.

Life a field of war and peace.

* As Comte clearly saw; and Christ two millennia before him: "Render unto Cæsar the things that are Cæsar's. . . ."

"*From whence come wars and fightings among you? Come they not hence, even of your lusts, that war in your members?*"

Epistle of St. James, iv. 1.

Is not life itself a field of alternating peace and war; and are not the great principles of strategy in the conduct of life identical for both aspects?

Strategical science identical in peace and war.

If so, we have an illuminating equation. If A is the wisest conduct of life as peace, and B the wisest conduct of life as war, then A = B. Whence the result that *the wisest conduct of statesmanship in peace is the wisest in war;* and *conversely that the wisest conduct of statesmanship in war is the wisest in peace.*

An absurd paradox, you will protest. Yet we venture in all humility to affirm that if both sides of the equation are duly weighed and considered and the teachings of each applied patiently to the other, the light thrown on the wisest conduct of life, either in family or in state, in peace or in war, will be found surprisingly instructive; ever remembering that strife is a very Proteus, revealing himself in forms unnumbered.

One consequence is that waste in war is waste in peace. Another that supreme economy in each is reached by the highest productiveness in all the highest things of life; that quality not quantity is the creative, enduring and far-reaching factor. In a crisis, either individual or national, the highest powers of the soul must be stimulated to creativeness, religious, educational and artistic, by generous expenditure of capital in the provision of those realities by which alone the soul's creativeness can reveal itself. Apathy in this is the fatal policy. Faith in the future thus prepared for will be majestically justified in the sequel; for faith is born in truth, and brings forth truth.

The supreme economy is the highest productiveness.

Let us suggest a concrete illustration. Absolute prediction is not possible for man, for the facts of reality and life are individual and unique. We must needs await the fall of the die to discover whether a six or a one shall be cast; still less can we predict what shall be the particular throws in a series of throws. But in spite of these falls of chance ceaselessly proceeding, the mechanical laws are also ceaselessly being obeyed; for these are the logical statements of what would be the behaviour of ideally defined dice to which the real dice approximate more or less closely. And at length in any sufficiently studied sphere we can obtain the closest accuracy of general forecast in the mass, though never reaching correspondence in the individual facts and items.

In a word the type of prediction alone open to man is the hypothetical; for not otherwise would reality embrace freedom of choice and responsibility for action, good or evil. Charlatans may lay claim to absolute prediction; but true wisdom has ever recognised the falsity of the claim.

Such scientific statements only as these can we truthfully make: If such and such conditions are satisfied, then so and so must follow. Not otherwise is it in the sphere of statesmanship, infinitely more complex.

Thus, if the evolution of aircraft is carried to a certain degree of complexity, then its future use for war will lead to certain consequences. But such evolution depends on certain conditions. We place these in the order of their importance.

Evolution of aircraft.

First is the growth of mathematical science. Now the whole history of that fundamental science teaches the lesson that two lines of research must be simultaneously followed here for success. *The one is research into the science for its own indwelling interest; the other is an equally intense love of it for its application.* Neither

Fruitful science unites monk and friar.

flourishes permanently without the other. The hermit in his cell; the friar in the market place: these are the indispensable pair for all enduring fruitfulness of research.

Here lies the grave danger of England in its general contempt for the scientific hermit.

The second condition is the encouragement of the inventive genius of the mechanical temperament. The third is the enterprise of private individuals and private firms in the development of aircraft for industrial and commercial objects. The fourth is the combined practical and educational training of all grades of skill in the invention, manufacture and transport of aircraft. The fifth is the gradual development of highly educated and skilled airmen for military purposes based solidly on this civil organisation, as the navy on the mercantile marine.

Tendencies to national disarmament and return to professional armies.

Would not these factors, united to high cost, tend, *ceteris paribus*, to the disarmament of the present types of huge national armies and to a gradual return of the professional soldier the world over? But a soldier, alike in officers and file, even more highly and technically skilled than his substantially conscripted predecessors mainly by reason of the voluntary and vocational spirit of his work? Would there, as a further consequence, gradually be a recovery of those humaner methods of warfare that tend to accompany a body of men with their ancient codes of honour learned in the bitter school of experience?

Tendencies to humaner warfare.

The evolution of whole nations in arms has led to increasing brutality in the conduct of war, owing mainly, it would seem, to the lack of these very factors.

"The fewer men, the greater share of honour."
SHAKESPEARE, "Hen. V."

A professional group as such evolves honour in a degree inversely proportionate to its size, but directly proportional to the length and the complexity of its education and training. Upon this evolution of honour (group loyalty) reposes the spiritual might of its prestige, perpetually sustaining both the individual member and the whole body.

Honour: prestige: and esprit-de-corps.

If invention should at length compass a union of the aircraft and the submersible boat in one machine, then the above tendencies would be greatly accelerated and strengthened.

It is an interesting question why (as appears to be the universal opinion) the Japanese, Muhammadan, and English armies are amongst the most humane of all soldiers in the conduct of war. Consider first Japan and England. Their male populations were the last to become nationalised armies; and therefore retained longest, not only amongst officers but also amongst the men, the humane and chivalrous traditions—largely hereditary in both ranks—of a highly professionalised voluntary body. Secondly, it is centuries since Japan and England were substantially invaded by foreign foes; there are thus no old scores of revenge to repay. Thirdly, perhaps not least, there is the influence of the island life, and the example of the sister navy with its grand millennial traditions of honour and humanity: born, matured and maintained by the hardships and dangers of that universal highway, open to all, the seas and the oceans.

The humanising effect of the guardianship of highways by land and sea.

The great waters breed compassion in man and a noble self-sacrifice that extends even unto the stranger and the enemy; and as with all nobility of soul these things are mightier than the mightiest weapon.

The sea breeds compassion.

Shall not thus in time the air warrior evolve a noble type of the grandeur of humanity; and thus great good grow in God's good time out of present woes and evils?

And what of the Muhammadan soldier? Here somewhat similar conditions obtain; though there is at first sight a marked absence of the ocean factor. Common, however, to sailor, English or Japanese, and Muhammadan caravaneer, are these functions: (1) *guardians of the common highway in the general interests of mankind:* (2) *universal merchant-travellers, also benefitting all, over sea and land respectively:* (3) *mediators of international amity, culture, and civilisation.*

No race can exercise these lofty and powerful functions for centuries, or even for generations, without simultaneously subduing their racial and natural passions to the usefuller and nobler purposes of life. *Nor would the united power and interests of the world tolerate permanent abuse of such a preponderant position.* Freedom exists not as a concrete reality, except under the sway of equally concrete law; in the absence of law freedom becomes elusive licence. So is it with "*the freedom of the seas*" and of other great highways of man and his work: in itself the ideal is a fantastic lure; it takes on reality under the aegis of power substantially incarnating international law, evolving yet humane.

It is deeply significant that Muhammadanism, the religion of the desert, the sandy sea, and Christianity, the religion of the sea, the watery desert, should each place the spirit of compassion and self-sacrifice on a pinnacle so lofty.

The further evolution of aircraft and submarines may be expected to lead ultimately to the growth of great Leagues or Confederations for the maintenance of an international policy for the use of all great common highways, by air or sea, by river or land.

* * *

Paul-Adam well says: "*le navire a toujours été le chef d'œuvre de la science*"; and the ship may once again play a supreme *rôle* in binding nations into co-operation and noble emulation as firmly as oceans link up the lands they separate. Still grander may be the mission of the ship of the circumambient air.

* * *

We note here the historical fact that sea-power, with large sovereignty, has never been enduringly exercised by other than insular, peninsular or sea-circling states. We see the verification of this statement by successive mention of sea-powers from the earliest recorded times of the Near Eastern and Western world, viz. Egypt: Crete: Phœnicia (Tyre was, at the summit of its military power, a fortified island; and captured by Alexander the Great only by the construction of a mole from the mainland part of the city): Carthage: Hellas: Rome: Italy: Arabia: Venice and Italian sea-ports: Turkey: Hanseatic League of Northern Towns (both insular and peninsular): Denmark and Scandinavian states: Spain: Portugal: Netherlands: and finally Great Britain and Ireland.

Enduring sea-power confined to states insular, peninsular, or sea-circling.

Further, in no single case but the last has sea-power been world-wide. For its endurance a certain proportion of coast to hinterland has been found necessary.

* * *

The Mill Wheels of God.

It is another and a famous saying that the wheels of God grind slowly but they grind exceeding small and sure.

The whole experience of the world establishes the truth of this grand and ancient saying in its application to all conceivable conduct, *from the unwhispered desire of the lonely heart to the vast ambitions of a mighty race.*

"Though He slay me, yet will I trust in Him." (*Job* xiii. 15.)

There is even more in the analogy between the justice of God and the mills of justice than at first sight appears.

As the wheel of a carriage rolls along a road, there is one of the points momentarily on the ground; there is one point, the centre of the wheel, moving with the speed of the carriage; and there is a point, momentarily at the top of the wheel, moving with a velocity faster than any other point. Between the extremes are all intervening degrees of velocity.

Picture the Wheel of God's Justice rolling with infinite spokes along Time, unending and unlimited, rising to the zenith above and plumbing the abyss beneath; and grinding as it rolls for ever. Then may we realise the depth of the old saying, on reflecting that, however slowly that Wheel may roll, being infinite in extent, there are times when justice is meted out with normal pace. Such times we commonly call evolutionary. There are times when the Divine justice is meted out with terrifying rapidity; these are the times of war and revolution.

And there are times when justice seems to halt and even cease and the noble human heart is sad; yet all the time and throughout time the Wheel of Justice moves irresistibly on, revolving at every point.

By this pregnant historical word "revolution" is implied not merely the uprising or rebellion of the masses of the people or nation against their governors, but the united uprising of the peoples and their governments in the different nations against each other, and against the welfare of humanity. In both cases we call the revolution by the dreaded name of war; internally it is known commonly as Civil War, externally as Foreign War. But in very truth all war is essentially Civil War. In the world of the individual himself, body and soul, it takes the forms of folly, disease, crime and insanity.

Peace and war run parallel within and without.

Nothing happens to man or nation in which they have not great part. Search then for sins in the heart when contention comes from without. In the heart of man all war begins.

That individual holds the strongest position in the fateful environment of life whose soul and body have peace within themselves. He can stand unoverwhelmed the cruel buffets of Fate.

> "For thou hast been
> As one, in suffering all, that suffers nothing;
> A man that fortune's buffets and rewards
> Has ta'en with equal thanks; and bless'd are those
> Whose blood and judgment are so well commingled
> That they are not a pipe for fortune's finger
> To sound what stop she please."

That family can best resist adversity where abides and lives the spirit of love and concord among its members; where there is family solidarity. These home truths apply equally and inevitably to the family of nations.

That nation need fear no unjust aggressor whose domestic heart and hearth are sound and peaceful.

Look but deeply enough and we shall find that conflict at home necessarily accompanies conflict abroad; and that conflict abroad necessarily accompanies conflict at home; so interplexed are the lives of men in every sphere of activity.

* * *

The inherent limitation to the sphere of applicability of principles.

All maxims and principles of whatsoever kind are, in their consequences and practical applications, parallel to the theoretical truths or principles of mathematical science.

Those doctrinaires who fail to recognise this natural limitation to all abstract principles tend to become mono-ideists or fanatics; and obstinately would stretch the universe itself upon a procrustean bed of rigorously defined principles, thereby beginning a

despotism over things and themselves, ultimately doomed to end in failure.

Each single one of the forces acting upon a body produces its own proportional effect; but determination of the actual motion requires not only consideration of the theoretical resultant of the individual forces, but also observation of the really existing concrete body which may be at the moment in question.

All such real bodies are subject to mathematical or mechanical forces too complex, profound and subtle to enter into scientific calculations.

It is only when the *scientific* study of the theoretical model passes over into, and is transcended by the *artistic* handling of the concrete original of the reality that successful predictions of results can be achieved.

Further it must be equally tenaciously remembered that action and reaction are equal and opposite; yet by this very truth the efficient design of all mechanism is conditioned. Thus likewise does wisdom combine apparent contraries in ethical principles as real complementaries of noble conduct.

An identical procedure is necessary in dealing with any group of human problems.

The supreme and inexplicable flame of genius.

So that when we have apparently exhausted in our scientific or theoretical survey all the essential forces or aspects, there still remains the final work of whatever there may be of genius, small or great, in each one of us dealing with these difficult questions; there still remains the final *creative* work of the man of action and conduct as *artist*, in his action and conduct transcending hitherto understood theory while simultaneously based thereupon; and the more accurately and comprehensively thereupon based, the more effective and successful becomes the resulting judgment, conduct or action.

It is here above all, that the degree of genius of one reveals itself as different from another's.

It is therefore necessary, while recognising the

limited sphere of validity of each particular truth or principle (however universal in appearance), and thoroughly preparing for possible contingencies, yet prudently to hold in abeyance the final decisive and summary application and conclusion upon the whole until circumstances clearly call for action.

At that moment the previous survey of the situation, cool and impartial, accurate and comprehensive, will win its just reward in the resulting field of final conduct wherein genius, flashing forth with affrighting rapidity and devoid of vanity, reveals its victorious light, illuminating to its friends and blinding to its foes. Complementary in fruitfulness are the maxims: "*Labor omnia vincit*," and "*Viam, aut inveniam aut faciam.*"

Thus thought and acted, at their highest reaches, Cyrus, planter of trees, and men; Alexander the Great, the Scipios and Cæsar; Muhammad, seer and soldier; Jeanne Darc, stateswoman, saint and general; Gustavus Adolphus, sleeping before the battle of Luetzen with the famous volume of Grotius beneath his pillow; Cromwell and Richelieu; Marlborough; Frederick the Great; Napoleon; Cavour and Bismarck; Lee and Lincoln.

* * *

The spirit of humour, or the spear of Achilles.

All principles derive their genial potency from the spirit of humour which is the far-famed spear of Achilles, healing by magic touch its own victorious thrust.

"Have you still to learn," said Alexander the Great to his followers, "that the end and perfection of our victories is to avoid the vices and infirmities of those we subdue and to profit by their virtues and their strength?"

Every man hath humour if he doth but know it, and therein possesses ever ready at his ear those two indispensable companions of beautiful living, at once a jester and a confessor. True humour is the spirit of sober proportion, envisaging man and his world as a

tragi-comedy; sweetening the world within and conciliating the world without, and blending both into a fair harmony: calming the over-exuberance of passion: drawing the poison from the bitterness of sin and defeat and converting it into a mellow wisdom: disarming vice and healing the wounds of rancorous conflict: conserving a noble modesty that recognises gifts beyond our own in all men and in all nations: uplifting men from the deeps of despair: gently breaking their frequent falls from the intoxicating heights of ecstasy: suffusing life with a sense of fair proportion whereby is perpetually recreated that smile of the sublime mystery of existence that lingers on the face of the dead.

* * *

An ancient Russian folk story* tells of a hero who could not slay his mortal enemy until he had discovered where lay hidden the secret germ of his life.

So to an isle far distant he must journey through many weary nights and days where grew the tree of life; and beside it grew its twin the tree of knowledge. Beneath the life tree he dug deep into the roots and there lay a chest which he opened with the magical key of science found hanging on the tree of knowledge. Within the chest lay another, and within that other a third; within the third a fourth; and continually with patient quest the magic key unlocked chest within chest, each more wonderfully fashioned as the series lengthened. And again lay chest within chest, while the labour waxed with unceasing increase until at length the hero's hair became hoary and his limbs grew feeble with age. Still he toiled on. At the point of death his fast closing eyes perceived at the bottom of the last chest of the endless series a small

"As the mirror thy face so reflects the world thy soul."

* The author has taken the liberty of repeating a variant of this folk story, as it reveals two different truths, the one applicable to science (p. 67), the other to war.

object, inert and shell-hued, which his too feeble fingers could grasp but strove to crush in vain, for therein lay hidden the life secret of his enemy. Suddenly there struggled forth a butterfly so bright and beautiful that the hero could but gaze thereat with rapt amaze as it escaped his grasp and fluttered gently skywards.

On the point of its vanishing from his mortal sight his own yearning spirit fled, following fast, reached the high soaring butterfly, and the two melted mysteriously into one; and *in death the hero recognised in his mortal enemy his truest friend!*

CHAPTER XVI

STATECRAFT: C. PRACTICAL SUGGESTIONS

THE political philosophy of the future must range with easy glance from the simple, local conditions that insure the purity of the water issuing from the parish pump, and the sufficiency and purity of the milk supply that feeds the baby citizen of the world, through all intervening stages to the vast and complex conditions precedent to a far distant world commonweal, embracing city, regions, nations and states, kingdoms and queendoms, empires and republics.

In deeper senses than our immediate forbears, forefathers and foremothers, ever provided for is this great living globe of children, women and men, scattered over its manifold regions, both differentiating itself into more elastic forms and varieties, and simultaneously growing a more coherent unity of mutually responsive groups, occupational and geographical, locked and interlocked.

Formidable as is the problem from the aspect of space as conditioned by the globe, no less so does it appear under the aspect of the universe of time. Political philosophy can guide safely through the perils of the yet uncreated future in proportion as it is itself enlightened by the experience of the past, alike modern, mediæval and ancient, alike Eastern and Western.

To so vast a design we can offer here but a modest chapter of suggestions, selecting view points for future detailed survey rather than presuming to lay down final

principles: if such indeed are discoverable by man, or even conceivable by him.

From its very nature all thinking must separate elements of life that in the concrete are inseparable.

Provided thought binds together again in the end things it has disunited and ever remembers the inadequacy of its categories and schemes to the sum total of life its services are indispensable, if limited.

In this chastened spirit we offer our contribution to the science of political philosophy now once again rapidly evolving.

On the infinite loom of time and space man weaves the weft and warp of the garment of government, mending and patching, discarding and reshaping, stretching and contracting: now operating with fingers patient and gentle, delicate and responsive; now rending furiously and reforming with an eagerness so titanic that scarcely can he at the moment of achievement recognise the old garment in the new.

Yet the millennial experience of his race reveals to him, when the heat of creation has passed into the light of cool and collected calm, the insignificance of the most formidable looking rent or of the most newly fashioned device in comparison with the unlimited vastness and unstaled variety of the original model. A relative insignificance, in very truth, has every such rent or device; yet in itself in temporal value it may be absolutely of transcendent importance.

Of this political garment the weft is geographical, and the warp is occupational. It were an ease to our vision if we image the geographical set of strands as running horizontally, and the occupational strands that cross them as lying vertical.

Each word, geographical and occupational, must be interpreted in a sense that is both elastic and comprehensive; now contracting, now expanding, according to the clearly felt demands of the context. This ambiguity of words is the necessary complement to

their definiteness, and is essential to the proper function of living language. No science can dispense with ambiguity, not even mathematics itself, most rigorous and precise of all. In short, every word has life that reveals new character the oftener we meet it.

At the outset we remind ourselves that continually and ceaselessly the geographical environment is creating anew the occupation, and equally the occupational environment is recreating the geographical in precisely equal measure. Man is at once the humble servant of Nature and her proud master.

Government as Art is based necessarily upon government as Idea: whether as opinion: or theory, which is opinion thoughtful and more potent: or, ultimately, on science which is opinion at once thoughtful, tested and systematised and therefore supreme in the realm of Idea. "Securus judicat orbis terrarum."

Yet as with all the living processes and activities of man, art transcends idea, opinion, theory, or science, by the very fact and in the very act of feeding upon it.

The existence of government implies both the equality of man and the inequality. Were all men equal government would be unnecessary: were all men unequal government would be impossible. The problem of government consists in the paradox that each individual is equal in his common humanity to every other, and yet also unequal by the very existence of his unique personality that gives rise to the endless manifold degrees of capacity, the indestructible roots of a perennial hierarchy.

Democracy and aristocracy rooted in the nature of man.

Inevitably and inherently all government is thus eternally democratic, and yet also eternally aristocratic.

When we see the element of subordination present in a graded hierarchy varying in form from slavery to the relative degrees of prestige in any modern drawing-room, we justly call the government aristocratic. When we see the element of equality present

in any level field of human activity, we justly call the government democratic. But inasmuch as every real government is seen, on closer analysis, to embrace both elements, it is perhaps more consonant with the truth and more conducive to unity to employ at times the older forms demo-aristocracy and aristo-democracy, for the respective instruments of government; wherein the former is characterised by the prominence of hierarchy (inequality), the latter by the prominence of level (equality). Thus a trade union is an aristo-democracy: an army a demo-aristocracy. The theoretical "syndicalist," in the narrower meaning, unconsciously ignores this fundamental truth, and in so far worships illusory idols.

Hence government is either a demo-aristocracy or an aristo-democracy.

Though in vastly different degrees, all government is essentially *representative* in essence. Even types of personal despotism, the most absolute and extreme as in the East, have ever been tempered by the power of assassination, when the injured believes that man's common humanity or divinity has been grossly violated by its highly placed representative; while collective or group despotisms ultimately perish under revolution for like reasons (as in the West).

This representation or representativeness includes both groups of units *geographically* bound together in interest, and groups of units thus *occupationally* bound. A survey of ancient and modern forms of government exhibits alike a confused mingling of these two broad types and also a definite tendency, though periodically checked, to evolve each into a separate instrument of government, arising not only from the two causes above mentioned, but with a further view to balance and progress, or more significantly stated, a balanced progress and a progressive balance.

Geographical and occupational groups are fundamental.

Whence arise two chambers or other instruments of government. The existence of this duality is

sometimes concealed by the fact that the two instruments in certain circumstances unite in one chamber, as where local assemblies contain in addition to the ordinary members other representative members whose function differs somewhat in nature, and whose office is of a character substantially more permanent than the other; as with Aldermen in English local assemblies (Councils, and so forth).

Whence the tendency to bicameral government, subconscious or deliberate.

* * *

We may thus suggestively picture the living garment of the higher social world-solidarity as consisting of weft and warp, the threads of each being partly international (or interstate) and partly intranational (or intrastate). Each of these again must ultimately embrace both associations of those who employ and associations of those who are employed.

Evolution of bicameral government as geographical and occupational.

The representation of each and all of these threads or strands within the nations (or states) and between the nations (or states) will doubtless come gradually about, both in the intranational (or intrastate) parliament, with its two chambers, and the corresponding international (or intrastate) parliament (or other equivalent political institution) equally with its two chambers.

Corresponding bicameral developments may be anticipated in local, civic and regional areas.*

These two chambers are likely to develop the one along occupationally (or vertically) representative lines,

* To understand sympathetically both the parts in relation to the whole, and the whole in relation to the parts, and thus to form sound judgment as to what can be done at the centre only and what should be done elsewhere, the author lays great stress upon the richer and wider *circulation* (not a mere ambitious passage upwards only) of statesmen and officials as between provincial chambers and imperial, and again as between these and the Dominions, India, Colonies and Dependencies. Such was the spirit of the Roman prætorship. The wider opening of the Diplomatic and Consular Service is also increasingly desirable.

the other along representative lines that are regional and geographical (or horizontal). The former will give fair scope for the development of the *saner* elements in syndicalism * alike national and international; the latter for the conservation of well tested elements in social solidarity.

Corresponding developments may be anticipated in the world of finance, intranational national, and international (or intrastate). The growth of national control over investments abroad, increased and accelerated by the great war, will doubtless give rise to international (or interstate) unions of bankers, interdependent with national (or state) finance; partly as co-operating with, partly as instruments of, and partly as independently controlling the national.

Evolution of financial control.

But though the relatively final form of these great developments may perhaps be foreseen, the details are so massive and complex as to defy anticipation; they will be formulated only after long, and perhaps bitter, experience.

Overlooking deliberately those controlling factors that inevitably and substantially modify the realisation of all systematic theories, we may perhaps note certain persistent tendencies in the gradual evolution of those larger complementary qualities that may serve to differentiate and characterise the two chambers of government above mentioned. Purposely we draw the tendencies in sharp contrasts that reality would greatly modify.

Probable characteristics of the two chambers of government.

* It would be well to return to the older and neutral word *syndication* to express the saner and realisable elements of the modern doctrine of *syndicalism*. The *syndication* of an allied group of occupations would then imply the *internal* government of that group in large matters affecting the welfare of all amenable to mutual agreement by a body of representatives from all grades, unskilled workers, skilled workers, supervisors, officials and employers. Agricultural occupations perhaps, above all, need such syndication, with special attention to the thoroughly organised revival and development of arts and crafts in the coming rural reorientation.

Geographical chamber.

In the geograpical chamber the member will attain his position and maintain it by representing the changing public opinion of his geographical constituents by whose vote he is elected. Here the electors are the predominant partner of the political contract.

Guild chamber.

In the occupational (or guild) chamber the member will attain his position by steady rise in technical judgment, in esteem, influence and rank in the hierarchy of his occupational group (guild). He will in general be selected by quiet invitation from the highest and most influential experts in his particular group acting as the high court of the guild, which may be world residential in its breadth and scope. Here the member will tend to be the predominant partner of the contract.

In the lower and geographical chamber we may thus expect to find a predominance of youth and mid-age. In the higher and occupational chamber a predominance of senescence (a noble period of life, not to be confused with senility) and old age.

It may be thus convenient to distinguish the geographical as the junior or *chamber of deputies*, and the occupational as the senior chamber or *senate*.

Further large characteristics of the two types.

As deputy a member is guided by his electoral caucus; as senator he guides his guild. The deputy has less independence and a smaller burden of painful responsibility. The senator represents the head; the deputy the heart. The senator is more grave and official, urbane and judicial, not easily moved; the deputy more sensitive and alert, more easy of access and alive to humour. The membership of the deputy will be relatively short-termed; of the senator relatively long-termed, perhaps lifelong.

The geographical constituencies in the chamber of deputies will be broadly equal in numbers of voters (male and female); in the senate they may be widely

unequal, for every allied group of occupations (or guild) will have its representation.

The geographical member will stand in the main for the broad interests of his region; the occupational for the broad interests of his guild. The former will be an expert in the psychology of the loosely organised regional crowd; the latter in the psychology of the highly organised technical group.

The deputy will tend to absorb the changing opinions of the democracy, and to become progressive; the senator will lean to the stable convictions of an aristocracy of high occupational skill and official administration, and tend to become conservative.

The deputy will be salaried by parliament and receive no pension; the senator receive a pension but no salary from the chamber.

The chamber of deputies will tend to concentrate on the present; the senate on the non-present (either the past or the future, or both). Debate will be conducted in the chamber of deputies within time limits and with strict relevancy to the main question; in the senate, freedom of discussion will be greater both as to time and subject, and small minorities or even individual opinions (however unpopular) will receive the consideration due to their own intrinsic weight. Thus in periods of crisis, when the executive leans to autocratic action, the senate should become the watchful guardian of those broad principles of justice, underlying rights and duties, that transcend the clamant needs of the moment and upon loyalty to which depend the ultimate stability of a state and its influence on the mighty public opinion of the whole living world.

The position of deputy will be non-hereditary; the senate will tend to a broad hereditary or family succession in its working, so far as certain of the secular guilds are concerned, even if heredity does not become legally incorporated as a necessary element in a certain proportion of its members in some states.

The junior chamber may perhaps tend to a preponderancy of masculine membership; the senate perhaps to a preponderancy of female; though on this last point anticipation may err even more seriously than on the others.

There remain the two vital questions. The proportional representation of the secular groups or guilds to that of the spiritual groups or guilds in the upper chamber. Also the question of finance.

The difficult problems of (1) spiritual and temporal representation;

In the senior chamber there is much to be said for an equal membership of the two great divisions (spiritual and temporal), provided there can be obtained a reasonable and substantial agreement as to which occupational groups are broadly temporal and which are broadly spiritual: but the whole matter bristles with difficulties.

As to finance, the necessity of balancing the powers of the chambers and yet also of giving scope to the statesmanship of each, and so far as may be of avoiding a deadlock, will tend to evolve two broad species of taxation, the one on a geographical basis according to family ability to pay (regional, national, or state), and the other a tax on the groups of allied occupations (or guilds), according to the taxable capacity of each.

(2) of a financial moving balance.

Thus also will the relative interests of the consumer (as represented in the junior chamber) and of the producer (as represented in the senior chamber) be reasonably balanced, each case embracing both employed and employer. A tendency to quantity and cheapness of the one will be balanced by a tendency to quality and dearness of the other: excessive competition and open entry into guilds of the junior, by monopolies and close preserves in the senate.

Consumer's and producer's interests safeguarded.

Finally, it is important to add that both employers and employed in each allied groups of occupations,

where both types exist,* will probably create some working combination by which each will obtain equitable and fair representation.

* * *

The Complex Interpenetration of Occupations.

The temporal and spiritual aspects of the perennial problem of government are at present particularly obscure by reason of the prevalent confusion of temporal with spiritual values throughout the Western world. With large outlines, therefore, for a lengthy period, practical solutions must be content.

There is another consideration likely to be of steadily growing importance. The specializing power of modern science and craft, co-operating with that subtle creeping of all life towards interpenetration and interweaving, will tend to the evolution of every fundamental occupation as a sub-function and servant of the rest. This fact will, of course, also complicate the grouping of secular occupations.

Thus we may find the mechanical guild evolving not merely its own expert followers, but doctors, scientists, lawyers, priests, teachers, arbitrators, and artists (each group containing males or females or both) adapted to the special needs of its own mechanical activities: in fine, producing its own representatives in faith, law, letters, healing, science, education, and art.

Similarly for the agricultural groups. And so forth. Is this indeed not a further development of facts and tendencies already existing?

Conversely, the professional occupations will tend to evolve their own groups of mechanical, organic, and political craftsmen and craftswomen.

* A very important and complex question will be that of the representation of official classes (civil and military alike).

A Convention of the Britamerindian Commonweal needed.*

Doubtless sane statesmen will find it advisable, in order to deal with these great matters in harmony with the great historical precedents, ancient and modern, to call at the fitting time a convention of the whole Commonweal, to which all regions, institutions, and groups (temporal and spiritual) that possess a corporate existence of real significance should be invited to nominate representatives, as it would be of vital moment and importance that all such elements of the body politic should be substantially satisfied that any change in governmental constitution had been initiated by a convention justly and fairly representative of all regions, races, institutions, and groups (guild or other).

Such a convention might well select a representative committee, not necessarily from its own number, and including a small proportion of members belonging to no sect, party, or group whatsoever, but impartial and neutral citizens selected by the other members from a list of volunteers (not excluding foreign nations),† to consider and present a report on the whole question.

This report, after being dealt with by the parent convention, would doubtless go through the customary expert official, parliamentary, and public stages of discussion, testing, amendment, correction, amplification, and popularisation; and finally pass into the law of the

* Another use for this name has been suggested on p. 5; but, whether Benjamin Franklin's larger vision is realised ultimately or not, the official adoption of this title by such a convention as proposed above for the confederation of all parts of the British Empire might be a useful policy in itself, and in no wise hinder the other. It is clear that the United States could not sink its personality under *Empire*, but could co-operatively join a commonweal (see p. xii. also), which may stand for any mode of government, republican or imperial or both united.

† "It was the custom of most Greek towns to entrust the establishment of their laws to foreigners. The Republics of modern Italy in many cases followed this example; Geneva did the same and profited by it." (Rousseau, "The Social Contract and Discourses," p. 36. J. M. Dent & Sons.)

Commonweal as experimentally and provisionally workable for a stated term of years. Long use and periodical revision would doubtless tend to solidify its central features, but a reasonable degree of perpetual elasticity would be prudent.

The duration of the whole procedure from start to provisional finish may clearly vary within the widest limits of time; but haste would be fatal and patience indispensable. Still more difficult to forecast is the function the Dominions, the Colonies, the Dependencies and India would come to exercise in such a development, alike conservative and reconstructive, of the Commonweal, which we have previously suggested might fitly bear the name of *Britamerindia*.

Though we have had in particular view our own country in this chapter of suggestions,* so complex, wide and representative a political problem now confronts her that we venture to hope the views put forward may be of some service to other countries, above all to the one so closely related in traditions and language, the United States of North America. Perhaps to China, France, Germany, Greece, Mexico, Russia, and Turkey also.

"*The Silence of the Peoples is the Lesson of Kings.*"

The great mother-spider ceaselessly spinning weft and warp of the social web of government.

In our images of the growth of governmental social organisation into occupational weft and geographical warp (each of these both intranational and international) we shall constantly and gravely be misled if we omit from this systematically satisfying picture the central substance from which it all flows and into which as generations pass it all periodically returns.

For it is the great spinning mother-spider of the

* Since this section was written the need of some such Convention or Conference has been officially recognised by the Coalition Government.

unorganised masses, male and female, a vast population, neither ordered, nor chaotic, but simply inchoate, from whose womb the fine web of all social development perpetually emerges. The deepest errors of political thinkers, the overweening pride of blood, and the gravest blunders of conventional statesmanship spring from insufficient familiarity with the thrilling life of this mighty centre, perpetually changing and shifting, inchoate and voiceless, yet overthrowing dynasties, creating new aristocracies, and transforming civilisations.

Here, neither the strong will, nor the noble heart, nor the great intellect alone is enough ; all three in one are needed for creative thought and constructive statesmanship in critical times.

For sinister ends, financial, revengeful, megalomaniac, or other, the perennial passions of the mighty masses may be exploited by unscrupulous demagogues with fluid principles, deluded by the belief that they have mastered the workings of the secret heart of this great human spider. But such false leaders it commonly turns upon at the last and rends and swallows with irresistible jaws and appetite voracious. The most carefully concocted schemes of reform suffer surprising changes, even to transformations into their opposites, when they come into living touch and rigorous test with this spinning beast of unpredictable ways.

Yet in this ever-pregnant womb are in miniature, yet also massive model, all types of social gradations, all hierarchies of rank and occupation, of place and office ; embryos true of the grandiose organs of direction and instruments of government in that upper world of church and state, principalities and dominions, whom its labours sustain as upon the unwearied back of an Atlas.

* * *

The solitary, said Aristotle, must be either a god or a beast.

May we venture to complete this significant and ancient saying by another? Not solitary but in crowds men commonly live; and are we not then all both gods and beasts, if also men? beasts of vile nature governed by every evil passion that the decalogue chastises; yet also gods; for "as the child is father of the man, so is the worker of all men; and it is time to cease thinking of the worker as a child to be led by the nose, but to recognise in him, according to his kind, the stuff of every occupation in the world, however highly developed—of skill, however masterly, of genius however sublime, of virtue however pure."

Man in crowds both god and beast.

Truly the whole world of humanity is one; and, going round one of the time-spirit circles of ranks on the endlessly developing social spiral, do we not see extremes meeting, and gain some faint and confused, but in so far true image of the social evolution and devolution, when we observe a subtle sympathy and relation uniting the degenerate scion of the aristocratic house, globe-trotting, licentious, gourmet and idle, with the meanest tramp, feeding gratis on the fat of the farm, luxuriating on the sunny bank in the open road, with his promiscuously begotten offspring reared in the public orphanage?

CHAPTER XVII

CHARACTERISTICS OF THE INITIAL EPOCH (ABOUT 550–50 B.C.) OF THE PRESENT CLOSING WORLD-ERA (ABOUT 550 B.C.–PRESENT TIME)

THIS latest of the presumably periodical world Eras, starting from the time of Cyrus the Great, roughly covering a duration of two thousand five hundred years, was initiated in its first period by an Epoch characterised unmistakably by many remarkable events, of which perhaps the chief were these.

First come the decay and ultimate break-up of those ancient civilisations and cultures situated in the three most remarkable and fertile pairs of river valley regions in the world, the Egyptian and Assyrio-Babylonian on the Nile and on the Tigris-Euphrates (Irano-Semitic), both situated in the Near East; the Hindoo on the Indus-Ganges in the Middle East; and finally the Chinese on the Hoang-Ho and Yang-tse-Kiang in the Far East.

Highly significant is it in world-history that, of these three vast river system regions, the last two are dominated by rivers whose mountainous sources, each pair in their respective localities, rise comparatively near each other, while in the case of the first pair, trade, commerce and culture are easy of access from one valley to the other, either through two readily navigable seas by North and South and the Arabian-Indian Ocean, or by broad caravan routes skirting the Levant; while periodically dominating all three seats of ancient civilisation and culture are the vast Turkestan tablelands with their

migrating folk of hunters and shepherds, themselves subjected to wide periodical dessication of the grasses. Whether in ancient times that are unrecorded civilisation ever scientifically mastered this problem of dessication, so immensely pregnant with periodical consequences to humanity, we know not as yet. As one at least of the great food problems of the world it must soon increasingly be considered by far-seeing statesmen.

The contemporaneous dissolution of these great civilisations brought about inevitably a period of world anarchy, alike spiritual and temporal.

A re-construction of philosophy and religion became necessary.

Hence we find emerging the great world figures of Confucius in the Far East, of Buddha in the Middle East, of a reformation of Zoroastrianism (if not the real period of Zoroaster himself) and the equally significant reformation of Judaism under the great Hebraic prophets Jeremiah, Ezekiel and Isaiah with the recovery and further elaboration of the Mosaic law under Ezra; both the Iranian (ancient Persian) and the Jewish reformations obtaining in the Near East, each of them apparently a living protest against the gross superstitions into which the ancient religions of the Near East had fallen, as was likewise the case with Buddhism and Confucianism.

Not the least of these remarkable philosophical and religious movements remains to be stated. It is the rise of Hellenic science in the broad sense, initiated as divine philosophy under Thales and Pythagoras, themselves probably of Near Eastern birth and certainly of Near Eastern culture.

So far and so mightily, in the spiritual sphere of the activities of humanity, not forgetting for a moment the profound, far-reaching and enduring influence of this philosophical and religious renascence upon the arts of life, fine and applied, and embracing literature in all its mighty forms, alike in East and in West.

On the temporal and secular side the world-wide anarchy already mentioned equally inevitably led to the rapid evolution of autocratic and androcentric empires. These were organised and administered through an increasingly centralised bureaucracy upon the ruins of the preceding civilisations, themselves in the main based upon a still more ancient feudalism, that followed a dimly recorded era of matriarchy.

Thus we find the Near East from the Indus to the Mediterranean,—and ultimately under his son Cambyses (529–522 B.C.) including Egypt itself—an empire for a time benignantly despotic under Cyrus the Great.

In the Middle East under Chandragupta (himself acquainted with Alexander the Great, in the Punjaub) the whole of Northern India becomes for the first time one united empire (about 300 B.C.).

Finally in China we see for the first time in its recorded history the rise of the imperial form of the Chinese Government under Tsin (Chin), who in 221 B.C. assumed the title of Emperor (Hwang-ti), citing the pre-eminence of the sun in the sky as unanswerable argument for the necessity of one supreme ruler in the nation and the complete subordination of the hitherto existing feudal principalities.

The rise of absolute monarchies (of which the vast imperialism of Rome was the then latest exemplar), tempered by the characteristically Eastern instrument of assassination—for autocracy tends to despotism, and despotism to tyranny—had an increasingly strong influence upon the position of the woman, tending to a distinct lowering and abasement below the comparatively high position held by her during the loftier periods of the ancient civilisations and cultures in the preceding eras (of which Etruscan appears to have been one of the most favourable to women).

In a word, the fair and just organisation of society on the temporal and secular side, though modified profoundly in many periods, nations and races by the

gentler influence of the spiritual renascence, became one of increasing difficulty.

We find also, as regards freedom of the person in a corporal and political sense, a strong recrudescence of slavery, passing into serfage, which had not wholly disappeared from the main states of the world even in the very last completed century of the whole era (the 24th–25th, or 1800–1900 A.D.).

CHAPTER XVIII

ENDEAVOURS TOWARDS WORLD UNITY

A. *Europe.*

In Europe itself there have been three main types of endeavour towards the achievement of unification and solidarity of its own area and peoples.

One was unification through the attempted attainment of permanent hegemony by one after the other of the European races over all the rest, broadly in the order of their penetration by Roman Imperialism inspired herein by Eastern models, as the illegitimate union of the temporal and spiritual powers in the hands of the secular ruler.

We see the latest in the present Prussian attempt following successively in the series, Napoleon and Louis XIV. of France: the Hapsburg House, with Ferdinand of Austria: Philip II. of Spain: Charles V., Emperor of Germany; Frederick, Emperor of Germany (1415–1493), with his favourite motto A.E.I.O.U. ("Austriæ Est Imperare Orbi Universo"), which spirit became hereditary in his house: England under Henry V. (the Treaty of Troyes, 1420): the Hohenstaufen Emperors (whose vast ambitions were shattered in 1250): Charlemagne (Frank and Teuton): the Greek or Byzantine Empire under the Empress Irene with design to marry Charlemagne and unite the Eastern and Western Empires: and finally the Roman Empire itself.

In essence any such unification, being a predominantly temporal or secular autocracy, naturally issues

in despotism, deepens into revolution and tyranny, and ultimately breaks down into anarchy through rebellion. According to the dominant period under consideration this spirit may be named Pharaohism, Cæsarism, Byzantianism, Cromwellism, Napoleonism or Bismarckism.

A second endeavour was unification of a predominantly spiritual type, through religion, culture, language, arts, or ethical law, initiated by the Catholic religion under the Roman Papacy: followed by the Renascence and Reformation: and now represented by the spiritual striving towards international law through the Hague tribunal, and by the growth of modern science (Newtonian, Darwinian, and Comtian as successive interpretations of man as mechanism, organism and humanism). This extreme, in its older forms, ended in spiritual torpor and ultimate decadence; for if man does not live by bread alone neither can he live without it.

The third endeavour combined in great measure the characteristics of the other two without the extremes of either. It consisted in the confederation, commonwealth, comity, or concert (note the co-operative spirit living in these great words) of free and independent cities and small states inspired by similar traditions of municipal government, guild organisations and modes of culture spiritually allied, such as the Hellenic City States, the Italian City Republics, the Hanseatic Free Towns, and now arising again under happy auspices in the modern civic and regional movement.

This third type of effort was by nature more stable and enduring than the others—picture the Venetian state enduring its thousand years—by reason of the vastly richer scope and field it offered to the flowering of the human spirit, alike in beautification of the body and the adornment of the soul.

Yet it too, in its older forms, broke down at each attempt through lack of discipline, mutual jealousies,

the corruption of luxury and lust, repugnance to self-sacrifice and suicidal competition for precedence of place.

Such briefly were the main internal causes of failure to achieve European unity.

But externally, too, there were causes equally powerful operating adversely; though the primal and permanent roots of decay and fall are ever internal, and no exterior force can permanently pull down any organisation able periodically to renew its own central life and thus to remain sound at the core. The Napoleonic maxim holds good not in war only as Napoleon saw; but in peace too, as, to his cost, he did not see. It is indeed applicable to all organisation and to life itself: "Every force perishes that cannot reinforce itself."

These external causes, to name the chief only and ignoring historical order, were the periodical migrations, primarily for food, from the central Asian plateau pressing upon the Near East and thereby upon Europe, as with the Huns, the Tartars and the Turks. Or similar migratory pressure from the North, as with the Goths, Bulgarians and Norsemen. Or from the South, as with the Carthaginians or the Arabians (Saracenic and other). Or again such world-moving events as the rise of new religions (Christianity and Muhammadanism), the re-invention of printing, the discovery of the New World, and faith-shaking or faith-shattering scientific discoveries, from the Copernican theory of the earth movement and the Newtonian law of universal gravitation to the invention of the machine process and the theory of the ascent of man from the animal.

In every case it was a vast widening of the world of Europe either in geographical and populous extent with inter-racial mixtures, or in its beliefs and knowledge, its arts and customs.

B. *Asia.*

Of similar efforts to achieve unity in the East (Far, Middle and Near) we can speak with less assurance by reason of our ignorance of their precise conditions, secular and sacred.

But there, too, these efforts appear to have foundered under forces substantially similar.

These Eastern efforts were in some instances more wonderful in extent, more enduring in time, than the Western achievements.

Witness the vast empire of Kublai Khan, whose sway alike temporal and spiritual in the thirteenth century extended from the Arctic Ocean in the north to the Strait of Malacca in the far south-east—Kublai Khan, himself the enlightened founder of the Popeship of the East, the Dalai Lama of Buddhism in Thibet whose present occupant ordered prayers and offered help for the English and their Allies in their efforts to withstand a new despotism.

Or again witness the multi-millennial sway of Confucianism in China.

Or the wonderful period of Asokan rule in India, initiated by the great Asoka (264–227 B.C.), Constantine of Buddhism, again embracing both spiritual and temporal authority.

Or the flourishing empire of Vikramaditya, centred at Ujjain,* in the sixth century A.D. : the Indian Alfred the Great, whose period, with Kalidasa, the Indian Shakespeare, nobly parallels our own Elizabethan age.

In view of our main theme it is not irrelevant to add that, from the successive stormy Western incursions initiated by Jinghis Khan (1162–1227) and his grandson Kublai Khan (1216–1294) flowed many mutual benefits between East and West, if accompanied by vast and deep suffering as is ever the mysterious law of

* The ancient Ujjainî, known to the Hellenes as Ozênê, one of the seven sacred cities of India.

divine chastisement, purification and illumination for individual, family, nation, or race.

Amongst other benefits Europe received from the East were the mariner's compass, silk and tea, the printing press (though this last had subsequently to be rediscovered), the steady geographical pressure discovering America and the Indies, and a substantial stimulus to the widening of the spirit of art and literature—the last of which deserves and will doubtless receive increasing attention in future research.

C. *Europe an Integral Part of the World.*

To those who study with humility alike the natural evolution and involution of life in the world of time and space, and the spiritual permanencies in the world of the timeless and spaceless, it should have become abundantly clear that the enduring unification of Europe (historically, Eurasia), as of any other corresponding area in the world, is impossible of realisation except as part of a world-wide unity under the co-operation both of East (Far, Middle and Near) and of West (New and Old), alike on the sphere of this vast globe of earth, and in the sphere yet infinitely vaster of man's spirit.

Does not all recorded human experience serve to show that the achievement of unity in one sphere must march step by step with its achievement in the other?

Yet ever the dream precedes the drama; and thus for the accomplishment of each step of unification, spiritual co-operation, preserving with courage undying each field of freedom hardly won, must ever precede the geographical cohesion.

Thus must European unity, through a concert of interdependent cities and states, small and great, evolve as part of a world-concert or universal *Commonweal*, the world body of man (*civitas gentium*), inspired and accompanied by unhurried, slow and gradual awakening of the still dreaming WORLD SOUL of humanity to

an increasing consciousness of the solidarity of all its elements through the successive stages, increasing in complexity, of individual, family, city, region, nation, state, race, up to even race-transcending and ever self-adjusting confederations, concerts, leagues or other groups of peoples, states, and occupational guilds (international and intranational, weft and warp of the garment of human solidarity), each with a common belief in a world-religion, the present great religions all-embracing.

To all thinking folk we would appeal for a nobler reinterpretation of the past, and thereby together to determine that the present world-crisis shall not fail to issue in a world-endeavour towards the construction of the foundation of this majestic temple of human solidarity upon and with the great globe, dreaming of things to be.

"*Where there is no vision the peoples perish.*"

* * *

Three of these ultimate groups are suggested: (1) A league for the development, maintenance and adjustment of an oceanic and aerial polity: (2) A Britamerindian Commonweal (*Britain*, the British Dominions, Colonies and Dependencies, *North America*, *Erin*, and *India*): (3) A special world court of justice, as part of the Hague Tribunal, for the adjustment of *private* financial claims against *foreign* states.

EPILOGUE

EX ORIENTE LUX

World-Reorientation to follow modern European Revival, Renascence, Reformation and Revolution.

THE last period, from about 1400 A.D. onwards, covering roughly five hundred years of the present closing Era, was successively characterised in the West by a *revival* of learning, a *renascence* of art, a *reformation* of religion (both as neo-catholic and protestant), and finally by a *revolution** of the social, political, economic and industrial conditions.

The present world crisis offers, it is urged, a grand opportunity to mankind to initiate the new Era coming by a *reorientation* of civilisation and culture that shall be world-wide in extent and profound in spirit, alike profiting by past eras and continuous with the best of the present. The circle of the globe is completed as the ultimate geographical result of the discovery, by Italian, Spanish, Portuguese, Dutch and Russian pioneers, of the new world of Americas, South and North, and of the ocean ways to the East. The far West and the far East are geographically one.

It is open, as never before to the same degree in the records of history, for that peninsula of the old world which we know as Europe (Eurasia) to learn once again from the Ancient East.

* See F. S. Marvin, "The Living Past," p. 142. (Clarendon Press, Oxford, 1913.)

It is open to the Ancient East, as never before, to learn from its eastern neighbour known as the New World.

And the Americas too, can they not mediate between the Far East and the European West by adding to their great possessions of the civilisation and culture of the latter (the South as substantially neo-Latin and the North as substantially neo-Anglian), the equally great and vastly more ancient spirit of civilisation and culture of the East.

Thus there is offered to the peoples of the whole world, in their respective positions, an opportunity for a thorough *reorientation*, alike geographical and spiritual, of their respective outlooks, conserving the noblest of their past and creating great things of their future in a world endeavour towards the unity of living mankind and a peaceful solidarity of their descendants through long ages of future time.

* * *

Certain outstanding aspects of such a gradual reorientation of world-wide vision may well be these :—

Comprehension by the West, fuller, deeper and wider, of that lofty principle of hereditary, collective and vicarious responsibility, punishment and suffering, inherent in the East, binding with indissoluble and adamantine chain into compassionate social solidarity, generation to generation, and into spiritual unity Man, this Earth, and the Heavens with GOD ; along with comprehension by the East, fuller, deeper, and wider, of that profound Western principle of individual responsibility, punishment and suffering, so stimulating to progress, initiative and energy of life: two principles opposed in formal logic but co-existing and co-operant in the ample spirit of Man.

Hereditary, collective, and vicarious responsibility and suffering.

Individual responsibility and suffering.

Increasing strength in the security and dignity of folk labour with adequate home and educational opportunities for the full flowering and final fruiting, in secular occupation and spiritual vocation, regional, national, racial and cosmopolitan, of those rich varieties, male and female, of the talents god-given to all.

Dignity of folk labour.

Full flower and fruit of talents.

A transformation of opinion, alike in East and in West, in the sphere of the relations of the sexes towards increasing equality before sentiment, morality, custom and law.

Noble and equal reciprocity in sex.

The admission of labour and woman * in East and West to the counsels † and councils † of the mighty; whereby the dominant spirit of the closing era, androcentric and despotic, shall give place and precedence to an ultimate matriarchal-patriarchy, temperately and slowly evolved throughout the world in the light of a great spiritual faith and resultant vision: wherein manly justice shall be tempered with womanly compassion: hard ambitions softened by humaneness; rights and privileges go hand in hand with duties and responsibilities; employers and employed see each the difficulties of the other in true perspective; the greatest in place feel themselves spiritual servants to the lowest, and the lowest in place feel the spirit of divinity flowing gently and refreshingly through the heart of their simplest labours.

Labour and woman in counsel and in council.

Thus may Europe and the Far West become inspired with something of the contemplative spirit, sacramental serenity, and dignified authority of the East, calming their destructive rush and cruel speed of living, instilling its own lofty courtesy and religious awe into the heart of its rebellious Western kinsmen, recreating the passion for beauty and rest; and the West in turn,

The world within and the world without fall and rise together.

* Illness due to child-birth was actually omitted in the Insurance Act! Woman's love of *sovereignty* is born of her passion to *serve*.

† See Graham Wallas: "The Great Society" (Macmillan).

relinquishing its greed for adding field unto field, its unparalleled exploitation and grinding of the faces of the poor in giant town and dwindling village, rise to nobler objects, and reveal to the East not its modern vices but such worthier things as the scientific secrets of its magical control over the vast powers of material and organic nature: in irrigation for agriculture and afforestation: in mountain tunnelling, canalisation, and means of transport by land and river, sea and air: setting bounds to the encroachment of the wilderness and jungle, and to the devastating inundations of mighty rivers (that periodical "Scourge of China"): subduing famine, pest, and plague; converting the burning rays of the sun into life-giving energy, so that the desert may blossom again as the rose.

To the achievement of these great ends, the noble emulation and magnanimous co-operation of East and West, alike in the world within man and the world without, perpetual and complementary labours of each and every good citizen, there is needed, as the first indispensable step, the patient inauguration of surveys,* no less thorough than the geological surveys made by European states, no less continuous, no less accessible, but embracing not the physical features alone but the biological, and sociological also, exhibiting the dominant realities of the present, the waning survivals of the past, and the

Co-operative surveys, universal and continuous, needed alike of the world within and of the world without.

* As initiators we have the labours of Le Play, Booth, Rowntree, and others; and now proceeding in London, in addition to important provincial initiatives:—

1. The Civic Survey of Greater London—under the auspices of the Royal Institute of British Architects.
2. The London Society's Constructive Survey.
3. The Survey of Westminster and Chelsea, organised by the Cities Committee of the Sociological Society and the Civics Laboratory, Crosby Hall.

See also: "Westminster, an Interpretative Survey" (*Sociological Review*, Jan., 1916). Also: "Cities in Evolution," by Patrick Geddes (Williams and Norgate).

germinal tendencies of the future. Surveys not only for the state, but village by village, city by city, these uniting again in co-operation, region by region. Surveys so deep and wide as to unite on common ground workers from all fields of action and all schools of thought concerned with social welfare, geographer and naturalist, poet and artist, anthropologist and archæologist, hygienist and educationist, psychologist and philosopher, physician and alienist, jurist and criminologist, politician and cleric, philanthropist and social reformer: and employer and employed, woman and man.

The comprehensive survey of the world within, a still mightier labour that all great ages have attempted, the coming new Era must renew. This implies a great poetical synthesis of the past philosophies and visions of this kingdom of heaven and hell and purgatory within every man, woman and child. Truly "Poeta nascitur non fit": but even the humblest talent may prepare the ground for the harvest of the divine world-poet who will surely come, by patient labour in the smaller field within its native powers, provided it be inspired by the fitting spirit.

It is in this simple and noble spirit that Booth ends his monumental work, "Life and Labour in London:"—

> "For the treatment of social disease it is first necessary to establish the facts as to its character, extent and symptoms. Perhaps the qualities of mind which enable a man to make this enquiry are the least of all likely to give him that elevation of soul, sympathetic insight and sublime confidence which must go to the making of a great regenerating teacher. . . . May some great soul, master of a subtler and nobler alchemy than mine, disentangle the confused issues . . . melt and commingle the various influences for good into one divine uniformity of effort and make these dry bones live, so that the streets of our Jerusalem may sing with joy."

Truly in the Lord's Vineyard are many labourers.

For as Man learns to understand and co-operate nobly with the great and inexhaustible powers of the world of Nature without, and simultaneously comes to know and co-operate nobly with the equally great and inexhaustible powers of that Microcosm of great Nature in his own body and soul, so may we have assurance and faith that men will grow to understand and love each other in all climes and classes, in all races and castes.

Time is for man: man is for eternity.

Thus, too, may we hope for a steady uplift of the standards of life and living—whose gross inequalities are a baneful source of evils *—throughout the earth, rising with equal scale in both aspects, spiritual and temporal, of that marvellous life-cycle of every man.

* * *

The twin-spirits of Janus and Vesta promise to revisit the world, and again for a while to preside in amity over its destinies.

* * *

The calm spirit of life's experience whispers gently and firmly in our ears to end on a note of sobriety We obey. He that would avoid the numbing paralysis of bitter disappointments must keep alive at the centre of his heart the ever strange yet familiar truth that everywhere and always human nature is human: that as of old so it is now: as now so will it be. So created and creative is the universe of man and nature that with every opportunity to rise is instantly presented an equal opportunity to fall: inasmuch as these are but two aspects of one and the same thing

Final note of calm sobriety.

So may we perchance avoid the equal dangers both of optimism and of pessimism, the Siren and Harpy of the still largely uncharted sea of human life.

The golden mean between extremes.

* * *

* Intranational and international. Here rises into prominence the increasingly great world problem of Immigration.

The Passing of an Era.

The temple of Janus.

Each time the dread gates of Janus close upon the culminating crisis of the passing of a World Era, through the opposing doors throng in a dense and motley crowd: the pale tempestuous and bloody passions of man; ideals and ideas, with the images that create them into glowing life; idols and phantoms, with the chimeras that ever turn them into dusty death; all vast in stature and myriad in number; whose conflict and co-operation when they meet within the temple evolve with stages slow and majestic an Era of Wardom or an Era of Peacedom.

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